ONLY 58p

Issue 71 • 17 March 1990

NEW COMPUTER EXPRESS

BRITAIN'S BIGGEST SELLING COMPUTER WEEKLY

AMIGA

- Air control trainer
- Dragon's return
- Infestation review

ST

- Discovery details
- Aerochopper sim
- Soccer supremos

PC

- Symphony upgrade
- 80 new Laser PCs
- Dragon Wars RPG

CPC

- Lightgun games
- ROMs drying up

SAM COUPE

- Software scheduled

C64•PCW•XE
SPECTRUM
QL•ARC•MSX

SPECIALIST COLUMNS

What's all the fuss about the Apple Macintosh?

And how on earth do they get away with charging so much for it? page 53

VOICE CONTROL PC IS ALMOST HERE

Speech recognition breakthrough heralds new era in computing page 3

DOES THIS MAN GIVE A DAMN?

Not about the opposition, says Bob Gleadow. Atari's UK boss talks about the company, the competition, CD and even the STE page 54

ST ESSENTIALS

Read Shopping Express for 32 pages of Britain's best computer bargains

9 770957 064004 11

CONTENTS

FEATURES

MAC ATTACK 53
The Apple Mac is often talked about but rarely bought. Is it worth the cash?

WHAT HAPPENED TO CD GAMES? 56
Remember those ads promising CD games on the 8-bits? At last they're here

ATARI SPEAKS 62
An exclusive interview with Bob Gleadow, Atari's top man in the UK

REGULARS

NEWS 2

COMMENT 8

TECH TIPS 58
The manual from Uncle, the most glamourous computer writer in town

LETTERS 65
This week with a special on astrology!

COMPUTER CHAOS 70
Micro mayhem revealed

SHOPPING EXPRESS

BUYER'S GUIDE: ST ESSENTIALS 23
Software buying advice from the experts

READERS' CLASSIFIED ADS 30
Hundreds of second-hand bargains

EXPRESS SALES 44
The place to shop for the best for less

JOBS 46
Need a new job? Look no further...

FREE ADS FORM 50
Place an ad for nothing!

YOUR MACHINE

PC compatibles 10
Atari ST 12
Commodore Amiga 14
Sinclair Spectrum 16
MSX-compatibles 16
Amstrad PCW 16
Amstrad CPC 17
Commodore 64 17
Sinclair QL 18
Atari XE series 18
BBC B and Master 18
Acorn Archimedes 18

FAST unveils anti-piracy phone line and audit kit

HOT LINE TARGETS CORPORATE PIRATES

Anyone fancy blowing the whistle on a few pirates? The anti-piracy organisation FAST (The Federation Against Software Theft) has announced that it is to set up a piracy hot line to enable members of the public to do just that.

The 0800 number, which costs nothing to the caller, takes its lead from a similar toll-free line which has been in use in the United States since last September, operated by the Software Publishers Association. The Washington-based SPA, which represents 600 members of the computer software industry, has contributed $25,000 to establish the FAST line.

In London for the initiative's press announcement, SPA director Ken Wasch sang the praises of FAST, which represents the UK arms of a number of SPA members. Wasch stated that the SPA had "marvelled at FAST's success" and FAST had "done more to fight piracy than any organisation in the world".

According to Wasch, the US hotline takes between 10 and 20 calls per day. As well as tip-offs on piracy – mostly from former employees of companies using illegal software, or from disgruntled workers shopping their bosses – the line also takes many calls from honest software users who want to be sure that they are not violating copyright.

FAST will hope for much the same from its own telephone service, which will help to direct interested business callers to its simultaneously-launched Corporate Self-Audit Piracy Program, designed to help systems managers cross-check for discrepancies between the applications found on their staff's PCs and the quantity of software the company has actually paid for.

The self-audit kit, which can be obtained free by writing to FAST, comprises of a list of proposed audit procedures, a suggested memorandum to employees and a sample corporate employee agreement for staff to sign stating that they understand the company will consider software piracy a disciplinable offence.

• *Hay: action on corporate piracy.*

The SPA, which already distributes a self-audit pack in the States, is also in the process of completing a software product to help companies with the cataloguing side of the audit. The program is designed to search machines for the 1,000 most popular software products and list them if found. It should be available free through FAST some time in the early summer.

FAST chief executive Bob Hay said that neither dishonest nor 'bad' management was to blame for most piracy, but that most managers were ignorant of the problem. "Your average member of senior management knows as much about computers as I do about brain surgery," he commented.

"The vast majority of British companies want to operate within the law, and that includes the law on copyright," said Hay. "Thanks to the self-audit program we will be able to help them to do so on a very practical level."

Of the hot line he stated: "We intend to use it exactly as the name implies and we will be prepared to act on any suitable information that we receive from this source."

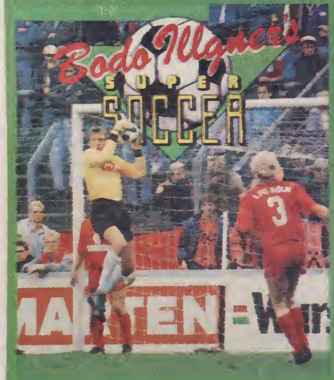
Ken Wasch said the most pirated piece of software found in almost all of the major companies which the SPA had helped to audit in the US was *Norton Utilities*. Ironically, the most-pirated application found in the UK by FAST, according to Bob Hay, is *Copy II PC* – a program used for making copies of other software.

FAST's hotline will be 0800 181502, but will not be in operation for about three weeks. Until then FAST can be contacted on 01-240 6756. The address to write to for a free self-audit pack is: FAST, 132 Long Acre, London WC2E 9AH. The SPA's European office in Paris can be contacted on 010 331 4692 2703. ■

• Meanwhile, FAST has seized counterfeit materials from a Surrey-based dealer. The raid came about after a piracy operation had been busted in Barcelona, Spain. Items had been posted from the UK to Spain.

That was the fourth major scoop for FAST in the UK this year.

A sense of déjà vu...



• *Bodo Illgner: Gazza's cultural exchange.*

Bodo Illgner's the name and football's the game. Bodo who? Empire's *Super Soccer* game has been converted to a variety of formats in a number of countries and is best known in the UK as *Paul Gascoigne's Super Soccer*. But in Germany, young Gazza's become the West German goalkeeper Bodo Illgner.

Apparently Franz Beckenbauer was the first choice but, as distributor Entertainment International were quick to point out, in Germany "you have to go through God to get to him".

In Sweden, Gazza has become Anders Limpar – the midfield player. In Italy Gazza remains on the box, while the game graphics feature Italian teams. Just shows what an adaptable player our Gazza is. ■

Mega Amiga in the air

A new Amiga-based system has been launched which will help train the next generation of air traffic controllers.

The SAAST System Control Workstation is to be installed at all the major Civil Aviation Authority centres around the UK.

Software for the souped-up Amiga 2000 has been developed by air traffic control experts. The computer, which features a 68020 processor running AmigaDOS, uses a graphics card giving a resolution of of 1,280 x 1,024 pixels on a touch-sensitive screen. ■

Dawn of the intelligent television set promises a new age of communication

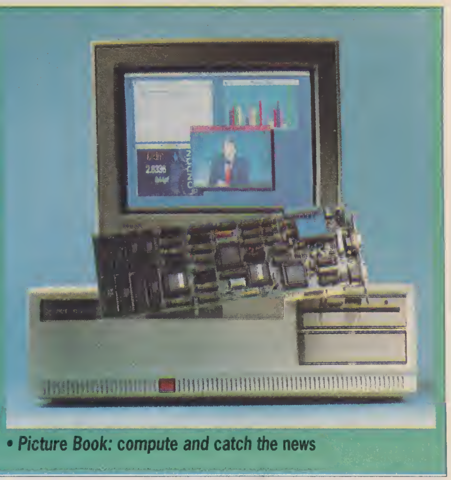
A new add-in PC board brings the age of the intelligent television one step closer.

Digithurst's Picture Book PC system allows live or recorded digital video to be superimposed on a VGA screen display. But the transputer-based video processing board and software is more than just a genlock device.

Digithurst is pitching the device at broadcasters using the new ISDN phone-line standard, which allows simultaneous transmission of video, voice and text data. Thus, specific information relating to an object or person in the video frame could be accompanied by associated voice and text material like background notes and library references – an ideal facility for news studios and picture researchers.

But the company believes its technology will go beyond even this. Billing the Picture Book as a major advance towards the introduction of the intelligent television, Digithurst expects such systems to find their way into the home. In such a scenario, a domestic viewer could interrupt any programme to receive data on its subject material via the phone line to their home computer.

Alternatively, the Picture Book could be used for the telephone transmission of full-colour magazines – who knows, *Express* could soon be faxed direct to your terminal for print-out!



• Picture Book: compute and catch the news

• Spectravideo IR: neat and tidy

Look, no strings!

A new joystick is to be launched utilising infra-red technology similar to a TV's remote control.

The Specravideo joystick will not need to be linked to your computer via messy wires. You simply have to plug a control box into the back of the computer. It works from a distance of up to 30 feet.

"Like a radio our new joystick sends signals over the air. The similarity does not end there either, because our product is also wireless," chortled sales director Richard Sekula.

"If you look at computers, with all the wire that is coming out of the back linking them to monitors, disk drives, keyboards and joysticks, the resulting entanglement is enough to make Birmingham's Spaghetti Junction look simple. Our new joystick is a positive contribution, you can play your favourite computer games without having yards of wire making the place look untidy."

It costs £39.95.

Spectravideo is now the official UK distributor of the Konix range of joysticks including the well-regarded Speed King and Navigator models. Meanwhile the Quickshot range, formerly distibuted by Spectravideo, are now being sold directly by the manufacturer, Bondwell.

Call Spectravideo for more details on 01-900 0024.

'Wide implications for the home and work' claim

BREAKTHROUGH FOR 'LISTENING MICRO'

By Colin Campbell

A revolutionary speech recognition system capable of running on IBM-compatible PCs was previewed in London last week.

The software-with-board combination promises to push computing into a new age by rendering the traditional keyboard redundant. Osprey, developed by the Centre for Speech Technology Research, has already proved capable of allowing use of a spreadsheet by vocal commands alone.

In the near future it should be possible, using such a system, to word process by simply talking to your computer, or even to control flight simulations through spoken instructions.

CSTR, based at Edinburgh University, has been working on the project for more than seven years. It has set out to avoid mistakes made by other developers in the search for a real-time voice recognition system.

Instead of treating words as basic units, Osprey has been designed to recognise speech sound 'building blocks', known as phonemes. There are only 44 of these in 'British' English, yet all words can be constructed from them.

This means that a new word can be added to Osprey's vocabulary simply by looking it up in a phoneme dictionary and feeding in the data given. In other systems a new word would have to be learned from scratch – a far more cumbersome process.

The other problem CSTR has overcome is that of systems being speaker-dependent – that they can only recognise the voice of the person they have been trained to work with. The research team has designed a data acquisition system which produces a database of the way in which a wide range of people speak, and this lets Osprey understand anyone who speaks without a strong accent.

The research has been based on the design of continuous speech recognition system operating in real-time using commercially available circuit boards which can plug into an IBM-compatible PC.

At the heart of the recogniser is the parallel processing power of the Inmos Transputer which can handle 10MIPS (millions of instructions per second).

At the London launch the system was put to work monitoring voice commands between commercial aircraft pilots and air traffic controllers, showing aircraft movements and warning if these did not match traffic control instructions.

Although not yet commercially available, it will soon be possible to plug the card and microphone into a PC – from a 286 upwards. CSTR is also working on a system which could work with portable or hand-held computers.

The chairman of CSTR, Professor John Laver, commented: "Speech computer interface is a new and potentially revolutionary technology with wide implications for the home and workplace. The Edinburgh Osprey represents a major step towards the commercial exploitation of computers operated by speech rather than a keyboard, and I would hope to see a product marketed in the near future. We are now seeing the beginnings of a speech technology industry in Europe."

The research unit has been awarded a £500,000 funding grant from the European Community's Information Technology program to assist in the development of speech recognition in a total of seven European languages.

CSTR is also involved in speech synthesis research – applying its phoneme techniques to the development of improved text-to-speech systems – and plays a role in Edinburgh University's pure research program on neural networks.

The logical conclusion to this would be a real-life version of the sci-fi computer which not only understands you but talks back.

Amstrad User Group Expo to help newcomers

A month-long computer exhibition is to be staged this month by The Amstrad User Group. The professional outfit is inviting the public to meet technical experts from Amstrad, who will be based at the Group's headquarters in Sunderland.

There will be demonstrations and explanations based on word processing, databases, spreadsheets and desktop publishing. Youngsters are also being invited along to play computer games.

It will be open six days a week at the Pallion Residents' Enterprise Centre until the end of the month.

"With this exhibition and our experts we aim to help the public familiarise themselves with the new technology now available, and to gain a better understanding of modern computer systems," said managing director Eric Innes. Call the AUG on 091-510 8787.

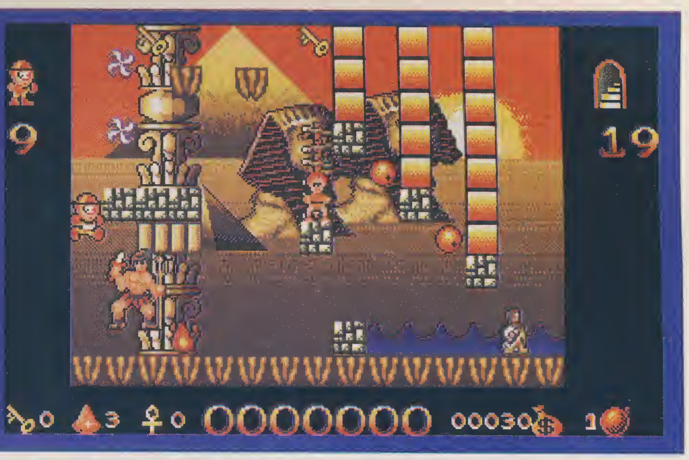
Logotron handles Millennium label with Kid Gloves

Logotron Entertainment has launched a new label for the new decade – it's called Millennium.

The new umbrella label will cover games written not only for home computers but also for games consoles and hand-held machines. Logotron hasn't singled out Millennium for any specific task – it will encompass arcade action titles as well as adventures, simulations and strategy affairs.

Logotron – already responsible for the warmly-received *StarRay* and *Archipelagos* – will be kicking Millennium off with a light-hearted game called *Kid Gloves* for the ST and Amiga. *Kid Gloves* is a multi-level object collection game featuring scenes from the Ice age, Egypt and California among others. The price is £24.99. ■

• Right: Kid Gloves, Millennium's first release.



PC pics with Davrelle

The corporate PC graphics program *Davrelle* is to be made available to home and small business users following drastic price cuts by Electric Distribution.

The firm has taken over the product and is selling it for £129. Formerly it was retailing at over £400. Electric says the new price will make top-end PC graphics presentations affordable to those looking for a low-cost solution.

The program can transform data from spreadsheets and databases into full colour graphs, charts and tables. You can use the provided chart templates or design your own, depending on individual requirements. Call 0480 496666. ■

Drive firm hits Scotland

Hundreds of jobs are to be created by US electronics firm Conner following the announcement that it is opening a disk drive manufacturing plant in Scotland.

The firm is claimed to be the fastest growing company in American business history. It was set up in 1986 by Finis Conner – founder of computer peripherals firm Seagate. Last year it achieved sales of $705 milion through its disk drives and notebook computers. Customers include Compaq, Olivetti, Epson and Apple. The manufacturing plant will be based in Irvine. ■

Hong Kong giant brings vast catalogue to Britain

LASER'S PC RANGE TAKES ON THE UK

Laser Personal Computers has launched a vast range of new PCs, totalling 81 different models.

Laser is an unfamiliar name in this country, but it is the 11th largest PC supplier in the US, and holds the number two slot in Canada and Holland. The Hong Kong-based company is hoping that its huge new series of PC-compatibles will help cement its future in the UK market.

Bottom of the range is the stylish-looking XT/SL. Unusually at this level, the machine is 3.5-inch disk drive based, and does not offer a 5.25-inch option. The XT/SL features a built-in joystick port and clock. Its 8086 processor runs at a fast 10MHz, and the basic machine comes with a high-resolution mono monitor. Prices start at £775 for a twin floppy model, with a 20Mb hard disk costing an extra £170.

If you need more expansion options the XT/3 offers six free expansion slots (as opposed to three on the XT/SL), and can accommodate three half-height disk drives, including 5.25-inch models. There is also a fast processor option which pushes the speed to an outstanding 12MHz. You pay an extra £60 on top of the XT/SL price for these extras.

• Laser 286: one of many.

Three different 286-based AT clones are offered, running at 12, 16 and 20MHz respectively. All feature 640K of RAM, expandable on the motherboard to 3Mb, and five free expansion slots – one 8-bit and four 16-bit. Mass storage is a 20Mb hard disk and high-density floppy drive. Prices for the AT models start at £1,250 for a monochrome 20Mb 12MHz system, running up to £2,275 for a 20MHz colour VGA model with a 122Mb hard disk.

At the top end, Laser offers a number of 386 PC options, and here real power begins to show. Even the basic 386SX (the SX is a cut-down version of the 386 chip) offers 'shadowed' ROM for top performance. Memory starts at 1Mb, with space for up to 10Mb. RAM can be interleaved for extra speed. Prices start at £1,675 with a 20Mb disk.

Topping the range are a number of 25MHz 386s with mouth-watering specs. Coming complete with a minimum of 2Mb of RAM, the machines feature a 64K memory cache, which massively speeds up data flow. The basic hard disk option is a 65Mb device with a fast 28ms access time and a data transfer rate of more than 550KB/s.

With power like that it's worth advertising the fact, and there is the option of a posey tower case for the speed king. Prices start at a corporate-level £3,090 and head skywards. ■

Nordic organiser

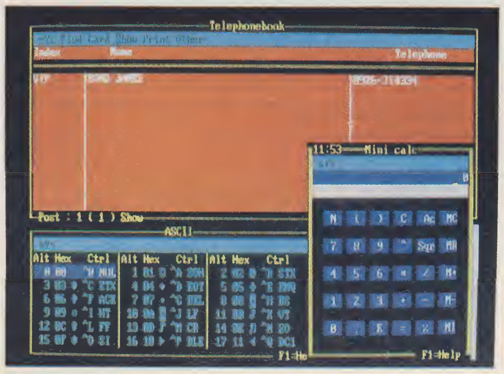
There's a new memory-resident personal organiser available for your PC.

Called *Help*, it originates from Scandinavia and has apparently proved to be quite a success in the Nordic countries. Costing £29.95 it can be accessed straight from any application, is able to store up to 10,000 names and addresses, and can print the addresses onto envelopes or labels.

There's also an alarm clock, text editor for personal notes, and calculator.

A built-in diary displays a month at a time and allows the alarm to be set to coincide with the appointments you enter.

Call Scandinavian Systems on 0926 336595. ■



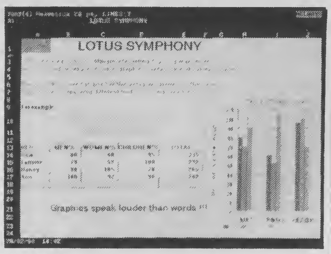
• Help: *Scandanavian organiser*

Going Loco in the USSR

Locomotive Software is to show its Russian version of *LocoScript 2* for the PCW at this week's computer show in Moscow.

Comtek '90 is the first computer expo to be held in the USSR, and interest in the PCW is likely to be high. It's one of the best-selling computers in Eastern Europe.

"This show provides us with an exciting opportunity to offer *LocoScript 2* to the new market created by *perestroika*," said commercial director Howard Fisher. ■



• Symphony: *new version*

Symphony due soon

A new version of Lotus' integrated PC business package *Symphony* is to be launched within the next two weeks.

Version 2.2 includes file linking to *Symphony* as well as certain versions of Lotus *1-2-3* and *Magellan* files. It has extended the database by incorporating direct access to disk-based databases. There's also a new display and printer drivers as well as a simplified macro debugger.

"We believe that the 100,000 *Symphony* users in the UK will find the new version an even more capable platform for building and extending a range of business solutions," said Lotus UK boss Paul Bailey.

Symphony is a combination of a spreadsheet, database, word processor, and graphics and communications modules. It requires a hard disk to operate, and costs £595. Bargains are available to upgraders. ▩

• £20,000 competition • Support from publishers

BIG PRIZE OFFERED FOR SAM SOFTWARE

MGT has laid down plans to back up its recently launched SAM Coupé with a much-needed software base.

Last week the firm presented a tentative list of those packages which will be appearing over the next few months. Since the machine's long-awaited launch, users have found themselves restricted when searching for software. The much vaunted Spectrum compatibility is far from comprehensive.

There is also an incentive deal to users who may be contemplating writing their own software. MGT is offering a total of £20,000 to software authors.

A first prize of £15,000 will be presented to the best program at the end of this year. In the meantime there are interim prizes of £500 every two months. The added special prizes of £1,000 will go to the best entry from authors under 12 years of age, to the best 12-16 entry, and to the best non-game. The entries must be original and will be judged by industry newspaper *Computer Trade Weekly*.

In the meantime Coupé owners can look forward to a number of games, educational and business packages over the forthcoming months. First up will be Audiogenic's *Emlyn Hughes Arcade Quiz* at £9.95 later this month. Other games include *Snoball in Hell* from Atlanta, *Delta* and *Sanction* from Thalamus as well as *Armalite*. Zeppelin is launching a number of games including *World Soccer*, *Mountain Bike Racer*, *Blinky's School*, *Full Throttle II*, *Spaghetti Western Simulator* and *Kick Box Vigilante*.

Also, all Spectrum releases from Domark will have a SAM-compatible version on the B-side.

Educational titles include *Fun School 2* and *3* as well as *Junior Quiz* from Kosmos. PCG is to launch a DTP and word processing package, while *Tasword 2* from Tasman should be out within a few weeks.

Pay
MGT
Or Order
£20000
Alan Miles · Bruce Gordon

• *MGT's Alan Miles with the obligatory 'large cheque' promo shot.*

MGT claims that many more companies are working on projects, but says those firms are keen to keep any plans secret. ▩

LCD monitor prices cut

Philips has drastically cut the prices of its emission-free LCD monitors.

The monitors have a distinct advantage over normal screens in that there is no radiation emission – which some fear is harmful.

The PM11211 CGA model is now available for £499, while the EGA version costs £549. Both prices have been cut by £200. Call 01-689 2166. ▩

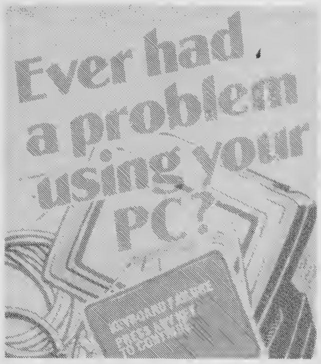
The PCW gets some games

When it comes to state-of-the-art gaming the PCW is not generally regarded as the first choice. But for those owners tired of all the old gags there's some light relief thanks to CDS.

The firm is to launch eight titles over the next few months, most of which have already proved themselves on, well, more mainstream games formats.

Among the titles are *Brian Clough's Football Fortunes* and *Tank Attack*, both of which come with accessory board games. TV licence *Sporting Triangles* is also promised along with *European Superleague*.

CDS says there are still plenty of PCW owners who want to play games – it's just that not enough software houses are taking advantage of that. ▩


Ever had a problem using your PC?
KEYBOARD FAILURE
PRESS ANY KEY TO CONTINUE

• Fax for details

PC Indie: all the facts

The Independent PC User Group has announced the availability of a new helpline – by fax.

Members who find their problems too complex to explain over the phone are invited to fax in their query, then they can send in examples of printer problems or screen dumps illustrating their difficulties.

The Group can send back notes already prepared by their technical support staff. The service is free to members – it costs £26 to join with special rates for students. Fax 0732 771513 or call 0732 771512. ▩

The ST Discovery pack: all the details

520ST
ATARI
DISCOVERY PACK
WORK, LEARN AND PLAY WITH YOUR ATARI ST
DISCOVERY PACK
DISCOVER THE

Comprehensive details of Atari's new Discovery Pack have been released.

The 520 STFM machine comes with four games – *Carrier Command* from Rainbird, US Gold's former number one *Out Run*, and Elite's *Bombjack* and *Space Harrier*. More impressively there is the popular games creation program STOS, with art program *Neochrome*.

There's also the BASIC programming language, a disk-based tutorial and a book called *Discover Your ST*. It all costs £299.

Atari says the pack "enables even the entirely inexperienced user to work, learn and play with one of the most advanced systems in the world".

For £399 buyers are offered an upgraded model, the 520STE, and for £499 the 1040STE comes with several business packages from Kuma. All packages will be in the shops by the end of this month. ▩

IBM joins in race for Euro superchip

IBM has been allowed to join in the £3 billion Euro superchip project currently being run by some of the continent's major players in the electronics field.

The US giant has been attempting to join in the project for some months, since it will benefit from any breakthroughs. It's also involved in a similar project in the States. In return to letting IBM in, companies such as Siemens (West Germany), SGS Thomson (France) and Philips (Holland) will have access to some of the breakthroughs made by the Americans.

The JESSI project aims to produce a DRAM chip capable of storing 64 million bits of information. The Europeans and Americans fear that top-end multimedia projects are being hampered by the slow chips currently available.

With IBM involved in both projects the company will be able to act as a gateway for technical information. The Japanese superiority in commercial chip technology calls for co-operation between the two.

Furniture thrills

Are you sick of all that computer equipment cluttering up the desk and making a right old mess?

Bulldog Computer Equipment reckons it's got the answer with a new range of "fashionable and functional" computer furniture. At the forthcoming *Which Computer?* Show the firm will be showing off a new and trendy line of black ash furniture including printer stands and desktops. Call 0455 844913.

C64 compilation

A four-game compilation for the C64 has been launched by Digital Dynamite.

Called *Gems*, it's the first such product from the firm. Games include a graphic adventure *Citadel of Corruption*, a spooky game called *Castle Boy*, vertical shoot-'em-up *Starburst* and *Stratagos* which apparently requires "frantic joystick dexterity". It costs £8.99 for the tape version and £11.99 for disk. It's mail order only from Digital Dynamite, 54 Watermill Road, Fraserburgh, Grampian AB4 5RJ.

New Apple

Apple is to launch a top-end version of its Macintosh computer utilising Motorola's super-fast 68030 chip, running at a much higher clock speed than the current Macs' 16MHz.

The IIxi machine will come with a minimum 40Mb hard disk and full colour display, and will be shown for the first time later this month. ■

Trade show host to dozens of games launches

EASTER BONANZA FOR MICRO GAMERS

An Easter bonanza of new computer games is being promised in a concerted effort by the whole games industry.

Most of the major software publishers are to congregate at the forthcoming European Computer Trade Show with dozens of launches. While the event is only open to dealers and people in the trade it means gamers can take their pick from hundreds of different titles this Easter.

Among the new Amiga titles are: *Powerboat USA* (Accolade); *Asterix and the Enchanted Stone, European Space Shuttle, No Exit* (Coktel Vision); *European Superleague* (CDS); *Laurel & Hardy, The Last Stuntman, International Athletics, Sorcerer's Apprentice, Search for the Titanic* (CRL); *Colditz, Rotate* (Digital Magic); *Imperium* (Electronic Arts); *Escape from Singe's Castle, Team Yankee* (Empire), *Wild Street, Crazy Bikes, Fire & Forget II* (Titus); *Venus, Combo Racer* (Gremlin); *Paradroid '90, Scavenger, Nebulous II* (Hewson); *Circle of Blood* (The Edge); *The Last Starship, Rourke's Drift, Web of Terror* (Impressions); *Voodoo Nightmare* (Palace); *Starblade, Maya* (Silmarils), *Persian Gulf Inferno, USS John Young* (Innerprize), *I Was Kidnapped by a Flying Saucer* (Tynesoft), *Jumping Jackson, The Toyottes* (Infogrames); *The Spy Who Loved Me* (Domark); and *Yogi's Great Escape, Hong Kong Phooey Number One Super Guy* (Hi-Tec).

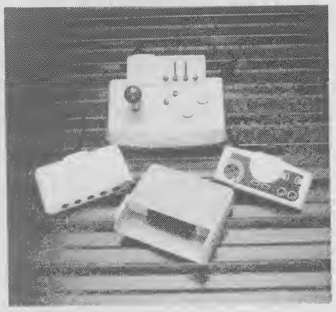
There are also plenty of ST launches. Many of the above games are included but there will also be: *West Phaser, Crazy Shot, Moonblaster, Tennis Cup, Panza, Superskweek, The Magician, Sherman M4* (Loriciel); *The Final Battle, Theme Park Mystery, Paradox, Back to the Future II* (Mirrorsoft); *First Contact, Fire and Brimstone* (MicroProse); and *Dan Dare III, GrimBlood, Hunter Kiler* (Virgin/Mastertronic).

There are also 73 game launches for the PC, as well as many for the 8-bit computers.

• These software publishers are a batty lot, eh readers? One minute they're zooming around in posh cars and the next they're mincing around in dodgy props. This sorry-looking trio are none other than Ian Andrew from Incentive (he's the one looking extremely tough), Dominic Wheatley from Domark, and his chum Mark Strachan (she's the one without any shoes on).

But what the devil are these buffoons up to? Mmmm, could it be that this is a promo shot designed to remind us that a new game is around the corner? Indeed, it's none other than the 3D extravaganza called Castle Master*, in which you have to dispose of baddies and rescue jolly pretty maidens (hence the togs).*

Trivia fans will no doubt be fascinated to learn that the clothes were used in Monty Python and the Holy Grail *and the 'castle' is in fact Fulham Palace Church where some of that famous rib-tickler* The Omen *was filmed.*



• Nintendo: on-line gaming

Nintendo's games go on-line

Nintendo has announced that it will be setting up a unique 'on-line gaming' network for its consoles in Japan later this year.

The test exercise will connect people who own Nintendo consoles to other families via telephone lines. This will allow someone in, say, Osaka, to do battle on *Super Mario Brothers* with someone in, perhaps, Kyoto.

But only families already on-line and using the Nintendo home trading system will be able to participate. The console, linked to a phone via the home trading communications adapter, will access Nintendo's host computer.

By using only a relatively small number of people Nintendo hopes it can iron out any bugs. It all begins in July. (Newsbytes).

COMPUTER FIRE STRIKES AT DEC BUILDING

Millions of pounds worth of computer equipment was saved last week thanks to prompt action by firemen.

On Tuesday last week the Hampshire Fire Brigade was called out to deal with a blaze at DEC's £28-million customer support building. Despite extensive damage to the building itself, the firemen managed to save most of the valuable computer equipment.

They had moved in to swathe six valuable Vax 6000 machines in fire-resistant blankets, and had then attempted to beat off flames from around the machines while putting the main fire out.

However, personal computer terminals worth up to £10 million were destroyed.

DEC says it fears some data will have been lost, but the firm always takes weekly back-ups which are stored at another site, as well as daily back-ups which are kept in a fire resistant safe.

No-one was injured in the fire. An inquiry into its cause is to be launched.

• Basingstoke fire brigade battles against computer fire.

Honeypot success

The American and European hacking community was buzzing with rumour and speculation last week following talk of a large scale action against US hackers by the FBI.

As yet no official details have been released although it is understood that up to a dozen computer operators have been arrested. This follows a seemingly successful ploy by the FBI to set up a 'honeypot' bulletin board which attracted hackers from all over the US to leave details of their exploits.

The hackers had presumed the board was simply another medium to boast about their latest break-in. ▒

An Wang in hospital

An Wang, one of the pioneers of the computer age and founder of Wang, has been admitted into Massachusetts General Hospital this week. It is not known whether his confinement is related to surgery for cancer which was undertaken last July.

The 70-year-old chief executive of the veteran computer firm is said to be continuing work from the hospital. He set up his company in 1951. Despite years as one of the world's major forces in computing, his business is now in trouble. The company reported losses of $72 million for the six months ending December 31, 1989. ▒ (Newsbytes).

Gold rocked

Two senior staff from games publisher US Gold have been arrested and charged with deception.

David Baxter, software development manager, and his assistant Tony Samuels both left US Gold earlier this month. They were charged on Wednesday and Thursday respectively last week.

US Gold stresses that its release schedule has not been affected. ▒

MIRRORSOFT PLANS HUGE GAMES RANGE

Mirrorsoft's second International Conference, held in Nice earlier this month, greeted assembled journalists with a range of new products.

The computer version of *Back To The Future II*, out soon on the Imageworks label, signals the start of a heavy investment in film licenses. This is traditionally a difficult area as development time is short and it is all too easy to ride a poor game on a good film. Mirrorsoft has a full-time scout in Hollywood on the look out for future releases and has already signed *Back To The Future III*.

A recent signing with Sega means that *Back To The Future II*, *Speedball* and *Xenon II* are currently being converted for the Sega Master games console.

The company's link with Cinemaware means a heavy investment in CD-ROM entertainment too. We were shown a video of the making of *It Came From The Desert* featuring real actors, just one of six new CD products currently under development. On more conventional 16-bit formats are *Wingz* (a World War I flight simulator), and *TV Sports Baseball*. *TV Sports Boxing* is due soon.

Flight Of The Intruder, on the Spectrum Holobyte label, is the successor to *Falcon* and puts the player in control of four separate planes during the 1972 Linebacker campaign over Vietnam.

Dungeon Master is at last to appear on the PC, together with an adapter that plugs into the printer port and contains a joystick socket and a lead to connect the adapter's built in sound chip to your hi-fi. This will be bundled as a limited edition at £39.99, after which the adapter will be available as a separate items.

Vektor Graffixis writing *Killing Cloud* for the Imageworks label. This uses techniques developed for flight and driving simulations to produce a futuristic graphic adventure.

Dr Peter Turcan, author of *Waterloo*, *Borodino*, *Austerlitz* and *Armada*, is working on a new gaming system for his next series of battle simulations. Meanwhile *Battlemaster* on the PSS label introduces role-play elements to the traditional strategy game.

Duster is being written by the authors of *Carrier Command* and puts the player in the shoes of a 'bug hunter', hunting mutants.

All titles are being launched for the Commodore Amiga, Atari ST and PC compatibles. ▒

Lynx and STE make Atari's future look bright

Atari has announced healthy figures for the quarter-year ending December 1989. The company made profits of $45.7 million compared to a loss of $97 million for the same period in 1988.

Total sales amounted to $170.6 million compared to $152.6 million. For the whole year Atari made $4 million, compared to losses of $84.8 million. That was on sales of $423.6 million – down from 1988's $452.2 million.

The company is putting that dip down to a slowing of sales of its traditional video game units. However, it says the emerging popularity of new PCs, the Portfolio and Atari Lynx point to a healthy 1990.

Atari president Sam Tramiel commented: "For Atari, 1989 was a transition year. It witnessed the introduction of a new generation of hand-held machines – the Lynx and Portfolio, and the disposition of an extraneous business segment." He was referring to the Federated chain of electronics stores, bought by Atari and then offloaded following poor financial performances.

"For 1990, Atari is fully committed to regaining its market share in the video game sector with products like the Lynx, increasing our market share in the personal computer sector with products like the Atari STE, and maximising our opportunity in the hand-held or palmtop computer business with the Portfolio." ▒

Computer dinner

If you're one of those people who likes to throw dinner parties, then you will be interested to hear of a new computer which can take the headache out of these difficult occasions.

It's well known that one of the biggest problems is pleasing everyone – especially if some of your guests are vegetarians or have peculiar fancies. A new expert computer, called Julia and developed at the Georgia Institute of Technology, can solve this problem.

All you have to do is program in all the favourites and no-nos of your guests. Then the machine will come up with a meal to suit everyone.

And it will store details of everyone's tastes for future reference. ■

COMMENT

So now computers can hear you speak. Will that give the computer addicts of the future a true friend at last?

It would be easy to take the Edinburgh Speech Technology Research and hype that breakthrough up into a frenzied vision of the cybernetic world of tomorrow. So let's do just that.

We're really into Neuromancer and Max Headroom territory here, but what the hell. It's a way of life which must surely come. The steps taken by organisations such as CSTR bring that era closer than ever. Certainly it can no longer be confined to novels and movies.

Imagine your computer, without a keyboard, but with both the ability to understand what you say, and to reply utilising speech synthesis. Take that a step further and donate neural technology and pretty staggering memory capabilities to your machine. Here goes:

- **Word processing:** The typist is a thing of the past. All you have to do is talk to your machine. For instance: "Dear mum comma par tab how are you?" The computer would put capital letters and the question mark in.

Forget spelling checkers. Every word is taken in context by the processor, so there is no confusion as t whether you meant 'pale' or 'pail'.

Also, if, as is likely, you get ahead of yourself, you can use the speech synthesis and ask for the last paragraph to be read back to you.

Using palmtop computers you can take transcriptions of interviews or conversations as they happen. You can also dictate faxes by remote phone.

- **Business:** Apart from word processing you can also send orders from a site back to your computer by phone and into a spreadsheet or accounts package. All business is immediate and portable. You no longer have to telephone an appropriate person who keys in the relevant data. Just call the computer and it will have employees hanging on every word.
- **DTP and CAD:** Tricky jobs are handled by voice. For example: "main pic left eight mil" dispenses with difficult mouse co-ordination.
- **Expert systems:** Your computer is linked to an expert system based on the medical knowledge of the day. Switch it on and there is a kindly video face and soothing voice.

"What seems to be the trouble?"

"My knee hurts."

And so on until the computer has a diagnosis.

You can actually converse with the machine. If the computer addicts of today consider their micro to be a best friend – imagine what tomorrow will bring.

- **Commercialism:** Movie stars are licensing out their phonemes to computer users. You can have the voices and faces of maybe Jerry Hall or Jack Nicholson – whoever takes your fancy.

The voices of the dead could be resurrected. It would not be difficult to re-create Elvis Presley or Marylin Monroe as a computer simulation.

- **Gaming:** Adventurers can forget typing in those commands and reading responses. You say: "Enter the hut" and inside a goblin is talking to you.

Simulations would be more accurate. As the captain of a submarine you don't type in your orders. You say them in the same way as real sub skippers.

Just thinking of this world of computing can turn your mouth dry. It is full of fearsome and intriguing possibilities. Perhaps you have some ideas? ■

FROM The ARCHIVE

ONE YEAR AGO

Nothing changes much from year to year. Twelve month's ago the headlines were being made by Atari, which had just announced its latest bundle. Entitled the Powerpack, it contained some 20 top-selling games including *Gauntlet II* and *Afterburner.*

Atari boss Bob Gleadow predicted that the pack would still be strong come Christmas, and he was right – the bundle has only now been discontinued after a highly successful year.

The Amiga was also being bundled up this time last year, but Commodore's offering was considerably less successful. The strategy centred around Air Miles, the promotional flight gift tokens, 500 of which were given away with each machine – enough for a return flight to Paris. Computer buyers proved a ground-loving lot however, and the bundle was soon phased out in favour of the Batpack.

One of the sickest games to date surfaced in Scotland where a bunch of warped hackers converted the popular *Sidewinder* game into the racist *Paki Basher*. The game graphics had been altered to depict attacks on Asians instead of jet fighters. The police were called in, but the culprits escaped capture.

US Gold made a brave but short-lived attempt to reduce the extortionate prices of 16-bit games by releasing a series of titles at £14.99.

Unfortunately for gamers, the trend, led by the likes of *Vigilante* and *Out Run Europa*, failed to catch on and prices soon went back up.

The cracks began to show in the specialist computer show arena when Database closed down the long-running BBC Micro Show. Other Database shows were to follow suit later in the year.

Atari's portable ST, the Stacy, saw the light of day for the first time at the Hanover show. Featuring a built-in trackerball, hard drive and MIDI ports the machine was instantly hailed as the touring musician's dream machine.

TWO YEARS AGO

RAM price hysteria gripped the trade as Atari, Amstrad and Acorn all claimed that prices might have to go up by up to a third. In the event the manufacturers took a deep breath and absorbed the price rises into their margins.

Atari announced a huge rise in turnover from just over £200 million to around £500 million, with profits up 36 per cent. The relatively low profits were put down to its American retail chain subsidiary Federated, which Atari is still embroiled in legal action with to this day.

Top games release of the week two years ago was the Amiga version of the classic *Star Wars*, which had finally been converted from the 8-bits. Other titles released that week have sunk without trace. Where are you now *Championship Sprint*, *Power at Sea* or *Slagon*? Topping the charts was *Ghostbusters*. *Plus ça change...*

FIVE YEARS AGO

Sir Clive Sinclair announced his aim of taking his company into the manufacturing of wafer-scale chips. He predicted that production of the devices would start in 1986, but four years after his prediction the industry still awaits the volume production of the silicon-based disk drives

Sources: *New Computer Express, MicroScope, Computer Trade Weekly*

NEW COMPUTER EXPRESS

EDITOR • Martyn Lester
FEATURES EDITOR • Andy Storer
NEWS EDITOR • Colin Campbell
CONTRIBUTORS
Rob Ainsley • Jerry Glenwright • Maff Evans
Steve Carey • Simon Williams • Robin Alway
Andrew Brown • Keith Neal • Jason Holborn •
Bertram Carrot • Rod Lawton • John Torofex •
Pete Gerrard • Mark Higham • Sally Newman

ART EDITOR • Julia O'Shea
PRODUCTION EDITOR • Stuart Anderton
DEPUTY PRODUCTION EDITOR • Ben Feinbaum
ART ASSISTANT • Amanda Cook

ADVERTISEMENT MANAGER • Mark Salmon
DEPUTY AD MANAGER • Adrian Taylor
AD EXECUTIVES • Simon Moss • Helen Kirkhope
ADMIN CO-ORDINATOR • James Leach
AD PRODUCTION • Frances Wasem
AD TYPESETTING • Terry Turner

ASSISTANT PUBLISHER • Jane Nolan
PUBLISHER • Greg Ingham

We regret we cannot enter into any personal correspondence or answer telephone queries. Technical enquiries should be addressed to Tech Tips at the address below.

ABC audited circulation July-December 1989: 22,277 copies per week

© Future Publishing Ltd • 30 Monmouth Street, Bath BA1 2AP • Tel: 0225 442244 • Fax: 0225 446019 • Subscriptions: The Old Barn, Somerton, Somerset (0458) 74011
• Printed by Redwood Press, Melksham, Wilts
• Distributed by Comag, West Drayton, Middx

While every care is taken in the preparation of *New Computer Express*, Future Publishing cannot be held responsible for the consequences of any errors that may occur.

ATARI ST and AMIGA

Sixteen Bit Superdeals from the Sixteen Bit Specialists!

CUSTOMERS PLEASE NOTE! When comparing prices remember ours include fast delivery by courier.

NEW!!

520STE Power Pack

£359.00

Inc. VAT and Next Day Delivery

NEW STE

Power Pack includes:

- ★ 520STE 512K Keyboard with Built-in 1 Megabyte disk drive and TV Modulator
- ★ 4096 Colour Palette
- ★ 8 Channel digital stereo sound
- ★ 4 Joystick Ports
- ★ Over £550 worth of games software, including OutRun, Gauntlet 2, R-Type, Space Harrier, Super HangOn and 16 more Top Games
- ★ Organiser Business Software including WORDPROCESSOR, SPREADSHEET and DATABASE
- ★ First BASIC and First Music Utility Software
- ★ FREE JOYSTICK AND FREE MOUSE MAT WORTH £4.95
- ★ All leads, manuals PLUS MOUSE and free mains plug!

REMEMBER! Many ST's do not come with BASIC - ours come with ST BASIC REV D by Metacomco

520STE Explorer Pack

£279.00

NEW STE

- ★ Explorer Pack includes 520STE 512K Keyboard with built-in 1 Megabyte Disk Drive and TV Modulator.
- ★ 1 FREE Game, ST Tutorial and METACOMCO Basic worth £25.00.
- ★ All leads, Manuals PLUS MOUSE and FREE Mains Plug!
- ★ Free mouse mat worth £4.95.

1040STE BUSINESS PACK

£479.00

- ★ Includes the new 1 megabyte 1040STE keyboard plus over £200 worth of business software including WORD UP wordprocessing software, featuring glossary and mail merge, K-Spread 3.0 spread sheet and SUPERBASE PERSONAL Database software Also includes Metacomco BASIC, Mouse Pad, all Leads, Manuals and Mouse.
- ★ 1040STE keyboard without software **£439.00**

MEGA 1 BUSINESS Pack

£549.00

Features:

- ★ Separate Keyboard and System Unit
- ★ Inc. all software supplied with 1040 STE Business Pack
- ★ Blitter chip installed for faster graphics

Inc SM124 Mono Monitor........£628.00

ACCESSORIES

Quickshot II Turbo Joystick	£9.95
Competition Pro 5000 Joystick	£13.95
Competition Pro with Autofire	£14.95
Konix Speedking Joystick	£11.95
Red Mouse Mat with Amiga logo	£5.95
Plain blue Mouse Mat	£4.95
Branded Memorex 3.5" DSDD Disks Box of 10	£13.95
Memorex Disk Box For 40 3.5" Disks	£8.95
Amiga 1/2 Meg Expansion	£119.95
Control Centre Atari or Amiga	£44.95

Contriver Amiga and ST Mouse with FREE Holder and Mouse Pad £20.95

PRINTERS

Star LC24-10 24Pin incl. lead ST/Amiga	£249.00
Star LC10 including interface lead for ST/Amiga	£169.00
Star LC10 colour including interface lead for ST/Amiga	£219.00
Citizen 120D including interface lead for ST/Amiga	£139.00

SEIKOSHA 80 COLUMN PRINTERS - AMAZING PRICES

Seikosha 9 pin NLQ including interface lead for ST/Amiga	£139.00
Seikosha 24 pin LQ including interface lead for ST/Amiga	£239.00

AMIGA A500
BAT GAMES PACK

£399.00

Inc. VAT and Next Day Delivery

NEW!

BAT Games Pack includes:

- ★ Amiga A500 512K Keyboard with Built-in 1 Megabyte disk drive.
- ★ Free TV modulator worth £24.99 allowing you to use the Amiga with a normal TV.
- ★ DELUXE PAINT II GRAPHICS PACKAGE.
- ★ PHOTON PAINT II graphics package with animation worth £70.00.
- ★ FREE, only-just-released BATMAN - THE MOVIE games software.
- ★ NEW ZEALAND STORY arcade games software.
- ★ F16-INTERCEPTOR - amazing 3D flight simulator software.
- ★ A further £230 worth of Games Software, including BUGGY BOY, MERCENARY, BARBARIAN, WIZBALL & six more games.
- ★ FREE JOYSTICK, MOUSE MAT AND 10 BLANK DISKS.
- ★ Amiga BASIC, Amiga EXTRAS 1.3, Workbench 1.3 PLUS the Amiga Step by Step Tutorial.
- ★ All leads, manuals PLUS MOUSE and mains plug!

AMIGA 1 MEG
BAT GAME PACK

£529.00

NEW!

1 Meg Bat Games Pack includes:

- ★ Fitted 1 Megabyte Memory Expansion + Real Time Clock Card
- ★ Everything listed for the A500 Bat Game Pack
- ★ DRAGON'S LAIR 1 MEG MEGAGAME!

AMIGA A500
CLASS OF THE 1990'S
BUSINESS + EDUCATIONAL PACK

£549.00

FEATURES:

- ★ Amiga A500 + TV Modulator
- ★ Midi Interface + Software
- ★ Kind Words II word processor
- ★ Page Setter DTP
- ★ Super Base Personal Database
- ★ Maxiplan 500 Spreadsheet
- ★ Amiga Logo, BBC Emulator, Deluxe Paint II
- ★ Mouse mat, 10 blank disks and disk wallet

EXTERNAL DISK DRIVES

Atari SF314 1 Megabyte	£139.00
Amiga A1010 1 Megabyte	£109.00
Cumana 1 Megabyte Atari or Amiga	£89.95
NEC 1 Megabyte Atari or Amiga	£79.95
Atari Megafile 30 Hard Disk	£439.00
New! Commodore A590 20 meg hard disk	£369.00
A590 Hard Disk + Memory Upgrade installed	Phone

MONITORS

Commodore Amiga A1084 stereo Monitor inc lead	£269.00
Atari SC1224 Colour Monitor inc lead	£259.00
Atari SM124 Mono Monitor including lead	£119.00
Philips CM8833 stereo colour monitor inc. lead for ST or Amiga	£259.00

CREDIT CARD ORDERLINE ☎ 0908 378008 (Mon – Sat 9am – 6pm)

To order either call the orderline above with your Credit Card details OR make a cheque or P.O. payable to: Digicom Computer Services and send it with your order to the address below. Callers are also most welcome at the address below.

INSTANT CREDIT NOW AVAILABLE

DIGICOM

Unit 36, Wharfside, Fenny Stratford, MILTON KEYNES, MK2 2AZ.

All prices include VAT and delivery by courier

** Written details on request APR 34.5% Variable.*

THE BIG BUILD UP

OK, Nigel Nock of Software Paradise, I take it all back. Even though you didn't include a photocopy of the packaging of *The Builder* last week, I have to admit that it does exist. This, as no doubt you guessed, is because the real thing arrived a few days ago.

It does most of what it claims. It takes an existing batch file, converts it to its own format and then compiles it to machine code. The resulting COM file can be run independently of *The Builder* with no licence fee due to hyperkinetix inc [*sic*], the producers.

For some reason, the program changes the syntax of some of the elementary MS-DOS batch file commands. Quoted filenames must be enclosed in speech marks, for instance and all calls to `COMMAND.COM` for functions such as COPY, must be preceded by RUN. This is fine if you're running an existing batch file through *The Builder*, but annoying if you're writing in native mode to make use of the extra structures and commands.

And there are plenty of extra structures and commands. *The Builder* programs can include CASE, REPEAT and WHILE statements, can read the size of disks and files, can get and return keypresses and can provide a complete library of automatic menuing utilities. The program supports variables, simple box drawing and cursor positioning and reading.

The finished programs are compact – minimum size around 3K – and execute more quickly than an equivalent batch file. They do take some memory space while running, though.

All in all, *The Builder* is an excellent utility. Just the thing for building installation systems or short menuing utilities. It's almost a language in itself.

The Builder is available from Software Paradise 0222 887521 for £79.35.

FLIGHT SIMS TAKE OFF

But if you're me, they rarely land again in one piece. Nonetheless, while taking the trouble to send through *The Builder*, Software Paradise sent through its new recreational software catalogue. It's worth a mention, if only for the wide range of games stocked by the company. Further details on the SP number.

LASERJET II SUPERSEDED

Hewlett Packard has launched a replacement for the industry standard LaserJet II laser printer. The LaserJet III – how did I guess? – is a touch smaller than the present machine, comes with a megabyte of memory as standard, and will retail at the same RRP of £1,999.

It's main innovation is in the firmware it comes with. The new machine emulates the Epson FX and IBM Proprinter, includes eight scalable fonts from Compugraphic, and Resolution Enhancement Technology (RET). This is perhaps the most interesting advance in the machine.

All lasers to date have used tiny but uniformly-sized dots to create an image. This is fine for small characters and graphics, but as the size increases the dots begin to show and the well-known 'jaggies' appear. This is particularly noticeable with diagonal lines, such as the sides of an 'A'.

RET gets around this problem by using a set of dots of varying sizes. This means it can fit even complex shapes a lot better, giving a smoother picture, at the same resolution.

Ironically enough, this harks back to traditional typesetting, where a screen is made up of many dots of differing sizes. A 100 line picture, as used in most newspaper photographs, has a lower resolution than a 300 dpi laser, but because of the variation in dot size, the newspaper photo looks a lot better. Find out more about HP's new technique and the LaserJet III by ringing 0344 360000.

STONING APRICOT

I've noticed from reports (in *Express* news and elsewhere) that the all-UK PC company, Apricot, is set to sell off its hardware division, which includes state-of-the-art 386 and 486 PCs. You may recall that the company originally set out to raise money on the strength of its PC prowess in January, looking perhaps more for a part sale than a full sell-out.

Now it seems that a main contender for taking over Apricot has emerged in the form of Commodore, the company currently claiming to be the number two computer company in the world. I think that this ranking is stretching the imagination somewhat, as the company's sales figures are boosted by the Commodore 64 and 128. Its PC sales look a lot less exciting.

A purchase like Apricot would make a lot of sense for Commodore, whose main PC models are rather run-of-the-mill. Indeed, the high-tech image of Apricot would slot in well, and give Commodore direct access to MCA and EISA technology – Apricot has stakes in both camps.

Neither company is prepared to make any comment at this stage – it would be surprising if they did – but Commodore would almost certainly be after a full buy-out, not a 'strategic partnership'.

HYPERPADDERS

No relation to Black Adder (alas), but a proposed user group for *HyperPad*, the easy to use hypertext-style tool on the PC. The idea is great, as the product is engineered to assist anyone in producing useful programs for their own purposes.

If, by chance, you would like to learn more, you may contact Mr Dave Langstaff, 78 Harrison Road, Swaythling, Southampton SD2 37J.

Simon Williams

JOURNO MISSES FREE DRINK!

Unlikely though this headline may seem, I missed a Press Launch the other day which included wine and a finger buffet.

The event which accompanied the goodies was the launch of a new range of PCs from Laser Personal Computers.

I am not able to tell you much as the company has not sent me details through, but I do know the new machines include two 25MHz 386s, a 386SX, a 16MHz 286 and an XT. This is undoubtedly good news as far as the PC industry is concerned.

SHORTENING BATCH FILES

Whether you're using *The Builder* or not, the following tip from Meir Greenfield of Sheffield might tidy up your batch files, if they need tidying, that is.

The tip concerns the usual technique for making multiple choice branches within a batch file.

Using an external program to generate an Errorlevel (such as the one in evidence on the *SHOWCSF* utility on the *PC Plus* SuperDisk), you would normally use a section of code like this:

```
IF ERRORLEVEL 10 GOTO LABEL10
IF ERRORLEVEL  9 GOTO LABEL9
IF ERRORLEVEL  8 GOTO LABEL8
```

and so on to...

```
IF ERRORLEVEL  0 GOTO LABEL0
```

But this is an awfully long-winded way of doing things when you can use:

```
FOR %%p IN (0 1 2 3 4 5 6 7 8 9 10)
DO IF ERRORLEVEL %%p SET ERRVAL=%%P
GOTO LABEL%ERRVAL%
```

The second technique makes use of the environment variable `%ERRVAL%` in a FOR loop. The FOR loop is one of the less well known structures within batch programming. The %%p parameter is given each value within the brackets in turn.

The test at the end of the line then checks if the errorlevel equals the current value of %%p and, if so, sets the variable `ERRVAL` to the same value.

The last line branches to the the label with the name LABEL0, LABEL1, LABEL2 or whatever.

PC GAME of the WEEK

DRAGON WARS

Interplay • £29.99

There are two different types of graphic adventures around at the moment. On the one hand games like *Leisure Suit Larry* or *Neuromancer* are essentially graphic versions of the classic adventure format. On the other hand RPGs (role-playing games), based on the Dungeons and Dragons formula, provide a party of adventurers the chance to explore a dungeon with the players' performance depending on a complex system of attributes attached to each character.

Deja Vu II, reviewed a few weeks ago, is a fine example of the first, while *Dragon Wars* is an RPG, developed by the team responsible for the excellent *Bard's Tale* series. It takes you to the legendary islands of Dilmun, on the watery world of Oceana, which your party finds under the spell of a beast called Namtar and you are seized, stripped of all your possessions and left to die in the disease-ridden hovels of Purgatory.

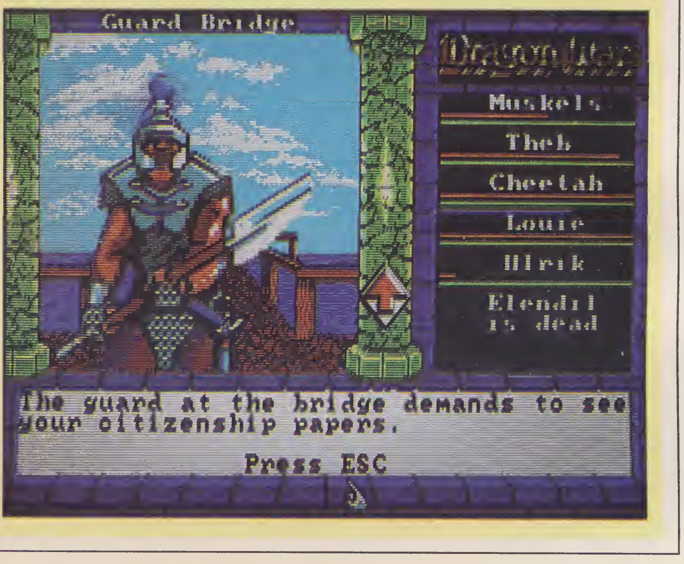
Characters are suitably-complex, with six attributes determining performance and some 20 skills for each to master. There are 65 spells for those with magical skills, and a sophisticated combat system that you can test against creatures ranging from Shadow Spiders to prison guards.

The world is large and normally viewed in perspective through the leader's eyes, although this can be confusing. It is possible to take a top-down view using 'Auto-map', but this takes you away from the main action and is not sufficiently detailed.

Dragon Wars has a good plot, augmented by nearly 150 'paragraphs' in the manual that can be read at strategic points.

However this new game, however good it may be (and it is good) cannot match Origin's *Ultima V* – let alone the forthcoming *Ultima VI* – for either size or graphics quality.

Matt Nicholson



The guard at the bridge demands to see your citizenship papers.

Press ESC

QUALITY SUPPORT SERVICE

Technology Centre

DOT MATRIX PRINTERS

9 PIN NARROW CARRIAGE		CPS	PRICE £
STAR	LC-10	144/36	125
STAR	LC-10 colour	144/36	166
STAR	LC-10 colour comm 64	144/36	166
CITIZEN	120D	120/25	108
CITIZEN	120D comm 64	120/25	108
CITIZEN	180E	150/30	118
PANASONIC	KXP 1081	144/28	122
PANASONIC	KXP 1180	192/36	139
MAN. TALLY	MT 81	130/26	107
OLIVETTI	DM 100SPR	200/30	119*
OLIVETTI	DM 105SPR colour	200/30	159*
EPSON	LX 400	180/30	135
EPSON	FX 850	264/54	354
HYUNDAI	HDP 910	180/34	134*

HYUNDAI HDP910
£127 WITH 1 YEAR ON-SITE WARRANTY

9 PIN WIDE CARRIAGE			
STAR	LC-15	180/45	255
PANASONIC	KXP 1592	216/45	255
HYUNDAI	HDP 920	180/34	214*

HYUNDAI HDP920
£199 WITH 1 YEAR ON-SITE WARRANTY

24 PIN NARROW CARRIAGE			
STAR	LC24-10	170/57	195
CITIZEN	SWIFT 24	160/53	239
PANASONIC	KXP 1124	192/63	219
EPSON	LQ 860 colour	290/88	549

24 PIN WIDE CARRIAGE			
STAR	LC24-15	200/67	325
STAR	XB24-15	240/80	510*
EPSON	LQ 1050	290/88	549

* ALL DOT MATRIX PRINTERS MARKED WITH AN * INCLUDE A 1 YEAR ON-SITE MAINTENANCE CONTRACT.

A 1 YEAR ON-SITE MAINTENANCE CONTRACT IS ALSO AVAILABLE ON ALL OTHER DOT MATRIX PRINTERS – ONLY **£16.**

A FULL RANGE OF SHEET FEEDERS, TRACTORS, ACCESSORIES & CONSUMABLES ARE ALSO AVAILABLE FROM STOCK – CALL FOR DETAILS.

WARRANTY

ALL GOODS CARRY MANUFACTURERS WARRANTIES. ON-SITE WARRANTY AVAILABLE ON ALL DOT MATRIX PRINTERS AND P.C.'S – CALL FOR DETAILS.
TECHNICAL SUPPORT AVAILABLE.
E.& O.E.
Goods not offered on trial basis.
Goods are offered for sale subject to our standard terms and conditions of sale – available on request.
WE STOCK MANY MORE PRODUCTS – CALL FOR DETAILS.
LARGE STOCKS OF FLOPPY DISKS AND RIBBONS CARRIED.

TERMS

ALL PRICES EXCLUDE VAT.
PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.
CALL TO CONFIRM BEFORE ORDERING.
STRICTLY CASH WITH ORDER. ACCESS & VISA WELCOME.
POSTAL ORDERS, CHEQUES AND BANKERS DRAFTS ACCEPTED.
OFFICIAL ORDERS FROM EDUCATIONAL & GOVERNMENT ESTABLISHMENTS, CORPORATES & PLC'S WELCOME.

DELIVERY

ALL GOODS NORMALLY DESPATCHED WITHIN 24 HOURS FROM RECEIPT OF CLEARED PAYMENT
– subject to stock availability.

P.C.'S AND LASERS	£15.00	NEXT DAY DELIVERY
OTHER LARGE ITEMS	£10.00	NEXT DAY DELIVERY
SMALL ITEMS	£5.00	4 DAY DELIVERY

VISA

LASER & INK JET PRINTERS

			PRICE £
STAR	LASER 8	8PPM	1195*
STAR	LASER 8	DUAL BIN	1649*
H. PACKARD	LASERJET II	8PPM	1299*
CANON	LBP8-111	8PPM	1379
CANON	LBP8-111T	DUAL BIN	1699
CANON	LBP8-111R	DUPLEX DUAL BIN	1899
OLIVETTI	PG 306	6PPM	899*
OLIVETTI	PG 208	8PPM	1199*
MAN. TALLY	MT-905	6PPM	879*
MAN. TALLY	MT-910	10PPM DUAL BIN	2054*
PANASONIC	KXP 4450	11PPM	1269*
EPSON	GQ 5000	6PPM	1059*
CANON	BJ-130	INK JET	535
MAN. TALLY	MT-91	INK JET	541
OLIVETTI	TH-760	THERMAL	525*

(equivalent to IBM QUIETWRITER)

OLIVETTI TH-760 THERMAL PRINTER
(equivalent to IBM QUIETWRITER)
£525 WITH 1 YEAR ON-SITE WARRANTY

* ONE YEAR ON-SITE MAINTENANCE IS INCLUDED IN THE PRICE OF ALL THE ABOVE PRINTERS MARKED WITH AN *.

A FULL RANGE OF TONERS, FONTS, MEMORY CARTRIDGES, INK CARTRIDGES AND OTHER ACCESSORIES ARE STOCKED.
PLEASE CALL FOR FURTHER DETAILS.

PLOTTERS & SCANNERS

HITACHI	681	A4/A3	PLOTTER	520*
HITACHI	673	A4/A3	PLOTTER	686*
H. PACKARD	7440	A4	PLOTTER	619*
H. PACKARD	7475A	A4/A3	PLOTTER	899*
CANON	1X-12F		SCANNER	659
CANON	1X-31F	SCANNER INTERFACE		99
CANON	O.C.R. SOFTWARE			308
NISCAN	HANDSCANNER			139
NISCAN	O.C.R. SOFTWARE			189

SHARP
5541 PORTABLE 286
£2349

* ONE YEAR ON-SITE MAINTENANCE IS INCLUDED IN THE PRICE OF ALL PLOTTERS.

CABLES AND CONNECTIONS

PRINTER CABLE	1 METRE	8
PRINTER CABLE	3 METRE	9
MODEM CABLE	1 METRE	10
T SWITCH	2 WAY SERIAL	18
T SWITCH	2 WAY PARALLEL	18
T SWITCH	2 WAY SERIAL CROSSOVER	25
T SWITCH	2 WAY PARALLEL CROSSOVER	25
BUFFER	64K IN-LINE	79

THIS IS JUST A SMALL SELECTION OF OUR RANGE OF CABLES, SWITCHES, BUFFERS ETC.
PLEASE CALL FOR FURTHER DETAILS.

PORTABLE P.C.'S

AMSTRAD	PPC 512s	SD	349
AMSTRAD	PPC 640s	SD	439
SHARP	4602	DD	839
SHARP	4641	HD40	1439
SHARP	5541	HD40	2349
SAMSUNG	S5200 286	HD32	1707

COMPUTERS

AMSTRAD (includes monitor)

		MONO £	COLOUR £	EGA £
PC 1512	SD	368	442	–
PC 1512	DD	442	517	–
PC 1640	SD	463	541	623
PC 1640	DD	518	598	683
PC 1640	HD30	682	767	857

COMMODORE STARTER PACK (includes monitor)

ALL MODELS INCLUDE 1 YEAR ON-SITE MAINTENANCE

8088; 4.77/7.16/9.54mhz; 640K ram; 3 slots; enhanced keyboard. Includes: serial/parallel ports; clock; 1 or 2 360K drives; hard disk controller; MS-DOS 3.21, GW basic & manuals.

		MONO £	CGA £	EGA £
PC 10	SD	495	629	739
PC 10	DD	559	699	799
PC 20	HD20	679	799	929

(As PC 10 SD but includes hard disk drive)

SAMSUNG (monitor not included)

ALL MODELS INCLUDE 1 YEAR ON-SITE MAINTENANCE

80286; 8/12mhz; 1mb ram (exp. to 5mb); 5 slots; enhanced keyboard. Includes: serial/parallel ports; clock; 1 x 1.2mb & 1 x 1.44mb drives; hard disk controller; MS-DOS 3.3, GW basic & manuals.

			VGA £
SPC 6512/1	DD		1029
SPC 6512/2	DD	HD20	1306

HYUNDAI (monitor not included)

8088; 4.77/10mhz; 640K ram; 5 slots; enhanced keyboard. Includes: serial/parallel ports; clock; 1 or 2 360K drives; MS-DOS 3.3, GW BASIC & manuals.

		MONO £	EGA £
SUPER 16TE	SD	399*	452
SUPER 16TE	HD30	589	658

* SPECIAL INTRODUCTORY OFFER ON SUPER 16TE SD MONO ONLY . . . INCLUDES 12" MONO MONITOR £378

HYUNDAI PC XT
WITH MONO MONITOR
£399

80286; 8/12mhz; 640K ram; 6 slots; enhanced keyboard. Includes: serial/parallel ports; clock; 1 or 2 1.44mb drives; MS-DOS 3.3, GW BASIC & manuals.

		EGA £	VGA £
286x	SD	744	769
286x	HD30	980	1091

AKHTER (monitor not included)

8088; 4.77/7.15/9.54mhz; 640K ram; 1 slot; 84 key compact keyboard.
Includes: serial/parallel ports; clock; 1 or 2 720K drives; MS-DOS 4.1, GW BASIC & manuals.

MINI-PC		MONO £	VGA £
MINI-PC	SD	441	554
MINI-PC	HD20	479	593

80286; 8/12mhz; 1mb ram (exp. to 8mb); 7 slots; enhanced keyboard.
Includes: 2 serial/2 parallel ports; clock; 1 x 1.2mb drives; hard disk controller; MOUSE, WINDOWS, MS-DOS 4.01, GW BASIC & manuals.

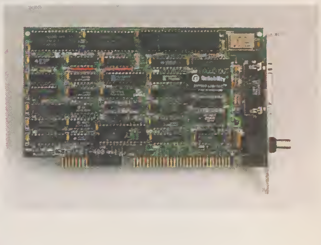
		MONO £	VGA £
AT 286-12	SD	779	876
AT 286-12	HD40	1071	1168

THIS IS ONLY A SMALL SELECTION OF THE P.C.'S THAT WE STOCK. CALL FOR FURTHER DETAILS.

MONITORS & CARDS

Mono monitors are available with green, amber or paper white displays – please state preference when ordering.

					PRICE £
MONO	HYUNDAI	HMM 1200	12"		65
MONO	HYUNDAI	HMM 1201 FST	12"		70
MONO	HYUNDAI	HMM 1401	14"		92
MONO	PHILIPS	BM 7513	12"		73
MONO	PHILIPS	BM 7913 FST	12"		80
MONO	PHILIPS	BM 7713 FST	14"		96
MONO	SAMSUNG	MA 2671/3/5 FST	12"		81
MONO	SAMSUNG	MA 4671/3/5 FST	14"		88
MONO	AKHTER	MONO 12	12"		65
MONO	AKHTER	MONO 14 FST	14"		79
MONO VGA	PHILIPS	BM 7749 FST	12"	P/WHITE	107
MONO VGA	AKHTER	VGA 14M FST	14"	P/WHITE	99
MONO VGA	SAMSUNG	ML 2611	12"	P/WHITE	81
MONO VGA	SAMSUNG	ML 4571	14"	P/WHITE	95
MONO A4	SAMSUNG	MP 5671 (inc card & drivers)			634
CGA	PHILIPS	CM 8833	14"		209
EGA	HYUNDAI	HCM 1420	14"		256
EGA	PHILIPS	CM 9073	14"		289
EGA	SAMSUNG	CM 4551	14"		281
VGA	HYUNDAI	HDM 401 FST	14"		253
VGA	PHILIPS	3CM 9809	14"		372
VGA	SAMSUNG	CJ 4581	14"		281
VGA	AKHTER	VGA 14	14"		273
MULTISYNC	SAMSUNG	CT 4581	14"		340
MULTISYNC	AKHTER	ECM 9600	14"		360
	MDA/CGA CARD with PRINTER PORT				45
	MDA/CGA/EGA CARD				99
	VGA CARD				148



CITIZEN	OSDD 05A-WD 3.5" 720K in 5.25" KIT		59
CITIZEN	OSDA 39C-WD 3.5" 1.44mb in 5.25" KIT		69
CITIZEN	OSDD 76A-WD 3.5" 720K AMSTRAD KIT		59
AKHTER	AMS 360A 5.25" AMSTRAD 2000 360K External		79
YE DATA	360 INTERNAL 5.25" 360K		59
TEAC	1.2 INTERNAL 5.25" 1.2mb		69
JAVELIN	HC20 20mb XT HARD CARD, 62ms		185
JAVELIN	HC30 30mb XT HARD CARD, 62ms		199
JAVELIN	HC40 40mb AT HARD CARD, 25ms	SPECIAL	399
JAVELIN	HC100 100mb AT HARD CARD, 19ms	SPECIAL	899
KYOCERA	KC 20B(s) 20mb XT/AT DRIVE, 62ms, 3.5"		138
KYOCERA	KC 30B(s) 30mb XT/AT DRIVE, 62ms, 3.5"		158
KYOCERA	FRAME 5.25" kit for 3.5" hard drives		5
XT 20	HD CONTROLLER XT MFM		44
XT 30	HD CONTROLLER XT RLL		44
AT 20	FD/HD CONTROLLER AT MFM		110
AT 30	FD/HD CONTROLLER AT RLL		114
AKHTER	MDM 2400 PC CARD MODEM V21/V23, V22, V22bis (inc software)		135

MDM 2400
PC CARD MODEM
£135 INCLUDING SOFTWARE

AMSTRAD	FX 9600T FAX MACHINE	529
AKHTER	FAX SWITCH AUTO SWITCHES CALLS TO FAX OR PHONE	59
DF-NET-300	ETHERNET CARD Novell/Ms-NET compatible	143
XT 88-8mhz	MOTHERBOARD nil RAM	69
AT 286-16mhz	MOTHERBOARD nil RAM	199
AT 386-16mhz	MOTHERBOARD nil RAM	549
PC/XT CASE	FULL SIZE XT CASE	55
PC/AT CASE	BABY SIZE AT CASE	73
XT-PSU	150W (full approvals)	78
KEYBOARD 84	84 KEY UK LAYOUT XT	41
KEYBOARD 102	102 KEY UK LAYOUT XT/AT	52
576K RAM CARD	– XT	27
2mb EMS RAM CARD – specify XT or AT		93
DMS200 SERIAL MOUSE – Includes DR HALO III software		38
XT MULTI I/O CARD (RS232/printer/clock/ floppy controller)		54
AT I/O CARD (RS232/printer)		54
XT RS232 CARD		19
AKHTER 250W U.P.S.		199

RAM CHIPS/CO-PROCESSORS – CALL FOR PRICES OF DRAMS, SIP'S & SIMMS.

THIS IS ONLY A SMALL SELECTION OF OUR HARDWARE RANGE – CALL FOR DETAILS

Technology Centre

HOLE HOUSE FARM, BURNLEY RD., CLIVIGER, LANCS., BB11 3RF
Tel. & Fax: 0282 831900 (24 HOURS)

MOUSE MAGIC

If it happens to be your ST's birthday and you feel inclined to give it something for a present, you could do worse than offering it a new mouse. After all, the standard issue item is remarkable only for its ugliness and its ungainliness.

The latest would-be replacement is the all-new high-resolution Kempston Daatamouse, featuring two superb microswitched buttons that are a world away from the dull clunky switches on the Atari mouse. There's also a clever little raised line on the left-hand button which helps you locate it without having to take your eyes off the screen.

At £35 (including a mouse mat) it's hardly an essential purchase: but if your present mouse falls to bits or seizes up, this is the one to opt for. The Kempston Daatamouse is on sale from Pandaal Marketing: phone 0234 855666.

UPGRADE UPDATE

News from Gribnif, producer of the justly popular *Neodesk*, indicates that a new version of the program will arrive soon, featuring support for all three ST resolutions, a two-window facility and faster file sorting. And, what is more, version 2.65 of the extraordinary Mac emulator Spectre GCR is soon to be released in the States.

Incidentally, HiSoft says all back orders for Spectre GCR have now been honoured, and further supplies are in stock. So if you've taken a fancy to owning a big Mac, but don't have the necessary folding, this could be your lucky day!

Meanwhile, still on the subject of STs with personality changes (er, emulators) Gasteiner has released two new additions to the PC Speed range, fitting the Mega and the STE and requiring no soldering – always a bonus, I feel. Give Gasteiner a bell on 01-365 1151.

SOCCER SHOCKER

Is there no end to the mounting pile of footie managing games? The two latest versions to thud onto the *Express* office floor are *Football Crazy*, from a small company called ESP Software (I seem to recall a game a couple of years ago called *Football '88* from the same source); and, at the other end of the scale, the *Player Manager* from Anco, written by Dino Dini, author of the astonishingly successful *Kick Off*.

Now I have to be totally honest (makes a change, doesn't it) and admit that this really isn't my thing at all. Give me a playable footie sim and I'm in heaven, but having to muck about buying and selling players, training and wheeling and dealing and I instantly start wondering what's on telly.

But in fact both these £20 games, in their separate ways, are good examples of the type. Of the two I'd have to plump for *Player Manager*, since it involves what I enjoy best: playing. Your decisions actually do influence a 'real life' game, and thereby involving the 'player manager' to a greater extent.

On the other hand, *Football Crazy* may well appeal more to the purist, who is interested solely in strategy and finds the lack of joystick waggling much more to his or her liking.

Incidentally, the programmer of *Kick Off* and *Player Manager*, the aforementioned gentleman referred to by the name of Dino Dini, is currently hard at work on *Kick Off II*, which in and of itself is expected to be ready in good time to cash in on the footie fever that is bound to surround the World Cup, which Holland is going to win (you heard it here first, folks).

But the prize for the earliest bid to cash in on this year's big sporting occasion goes to those monsters of budget, CodeMasters for *Italia 1990*, a £4.99 feast of footballing fun, or something. Ah well, we might as well get used to it sooner rather than later.

If by any chance you're not a footie fan I'd be inclined to move your ST into the cupboard under your stairs and move yourself in after it.

YOU CAN DO EVERYTHING

Reports of an ST multi-tasking package being developed in the US have been circulating for some time, though it appears it is, at least initially, to be aimed at musicians.

Apparently the program enables the user to have up to six separate programs running simultaneously. Don't hold your breath, though, for the program is unlikely to be seen on the European side of the Atlantic during this current year.

Steve Carey

PLAYING TIPS

VOYAGER

Before we go, just enough room to squeeze in a quickie *Voyager* cheat:On the option screen, type 'when the sweet April showers fall'. The cheat option screen should now appear. When playing the game, use F1 to go back a level, F2 to go forward, F7 to pause and F8 to show your position.

Also, on the option screen, you can press enter to call up an object designer where the arrow keys and keypad numbers can produce some very interesting results. Hit space to return to the option screen.

IMPROVE YOUR SIMS LIFE

• The Advanced Gravis joystick, featuring unique tension adjuster

A while ago I went to see Bob Sidgwick in Bristol to report for one of the *Express* sister magazines, *ST Format*, on the £200 Aerochopper, which might fairly be described as the ultimate flight simulator. It's a hand-held device used by fliers of radio controlled planes to practice on, and it enables the user to reproduce flying conditions on an ST.

The hardware feels and behaves exactly like the radio controller that is used to fly the plane itself. The beauty of it is that it lets the user put in simulated flying time without having to put his or her plane at risk.

Does it work? You bet – if I can learn to fly using it, anyone can! After a couple of hours on Bob's ST with Aerochopper I went out and, under Bob's expert supervision, actually flew a plane. It's a marvellous experience, and requires far more skill and precision than I'd imagined.

Anyway, the point about all this is that Mirrorsoft has now got involved, releasing *Falcon* and *Mission Disk One* in Aerochopper-compatible form. So now you can enjoy the ultimate flight simulation on the ultimate flight simulator.

And though it can hardly be thought of as a casual purchase, Bob told me that many radio-controlled plane buffs had bought an ST just so they could run Aerochopper! And that's not all, for I hear that another famous flying name is soon to become available in Aerochopper form. More on this when the story firms up.

By the way if you're a flying freak and you don't happen to have 200 pounds in ready money, there is a cheaper way to improve your sims life. RC Simulations has begun importing the Advanced Gravis Switch Joystick.

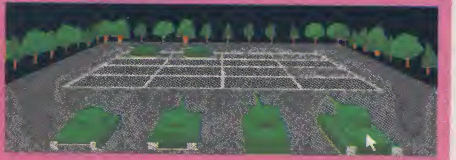
It's a peculiar-looking object, as so many new joysticks these days are, with the special feature of adjustable handle tension with eight settings. The result is a choice completely slack right up to wrist-wrenchingly firm – with all points in between. It makes a big difference to flight sims such as *Falcon*. The Gravis costs £39.91.

For more information on either of these items get yourself in touch with Bob Sidgwick at RC Simulations on 0272 550900.

ST GAME of the WEEK

CONQUEROR

RAINBOW ARTS • £19.99



Several years ago a tank sim called *Conqueror* appeared on the Acorn Archimedes, but no one took much notice at the time. Now the game, written by David Braben of *Elite* fame, has surfaced on the ST – and it was well worth the wait.

When you see the screenshots of *Conqueror* the first thing to hit you is their remarkable resemblance to *Virus*. That's because the unusual playing environment designed by Braben and first used in *Virus*, reappears in this, his latest game.

Conqueror is a tank game with a difference. It doesn't intend to be a straight tank simulator but instead fuses action and strategy modes to come up with a fully-playable and long-lasting challenge.

The game is arranged in three levels – arcade, attrition and strategy. Arcade mode is a standard action level where you must move a tank around the battlefield, searching out other tanks and blasting them to smithereens. The keyboard is the best method of controlling the tank and a logical set of keys enables you to control the direction of the tank and dictate the position of the turret.

When you tire of the arcade level, you can move onto attrition mode which is a combination of action and strategy events. Here, you control one light tank, two medium and two heavy-duty. By conjuring up a map you can see the location of enemy tanks on the battlefield and send your tanks out to destroy them, putting some tanks into automatic mode and controlling one yourself.

Finally, there's the action mode. When you look at the map in this level, you can spot a large circle encompassing roads and a town. Using the same number of tanks from the attrition mode, you must move into this zone and capture the area for a full minute. In essence, this means ensuring that no enemy tank can breach the circle but with so few tanks under your command, it isn't always easy to fend them off. The answer is to spend much of the game blasting other tanks and amassing a large score which can be used to purchase other tanks and establish a stronger army.

There are few games as addictive or challenging as *Conqueror*. With the three levels, you are eased gradually into the game so that by the time you come to play the strategy mode, you are already experienced at controlling tanks and reading the map. As a result, *Conqueror* has a very high long-term interest value. Indeed, even if you're not a tank fan, you'll go mad playing *Conqueror*.

TAKE OFF WITH AKHTER

CALL US ON (0279)411111

YOU CAN SELECTIVELY ERASE
USING THE ERASE COMMAND:
AND PUT IT BACK WITH THE "OOPS"
ANY NUMBER OF DRAWINGS CAN BE
MERGED OR COMBINED.
MIG-25
AKHTER

AKHTER

286 SPECIAL OFFER

- 80286 processor operating at 12MHz
- 1Mbyte RAM expandable to 4Mb
- 40Mbyte 25 Millisecond fast hard drive
- 14inch colour VGA monitor
- Microsoft compatible mouse
- MS-DOS 4.01 and windows 286

ONLY
£1395.00

AKHTER
COMPUTERS
LIMITED

386 SPECIAL OFFER

- 80386 processor operating at 20MHz
- 1Mbyte RAM expandable to 8Mbyte
- 40Mbyte 25 Milliseconds fast hard drive
- 14inch colour VGA monitor
- Microsoft compatible mouse
- MS-DOS 4.01 and Windows 386

ONLY
£1795.00

12 MONTH FREE ONSITE WARRANTY
GUARANTEED 8 HOUR CALL OUT

HOW TO ORDER

Our telephone lines are open between 9.00am until 6.00pm Monday to Friday. Our telesales team are qualified to answer questions on our products. If you need more in-depth information our technical support team will be on hand.

For more information on all our product ranges contact us now for your full colour Akhter catalogue and price list on our SALES HOTLINE number (0279) 411111.

ATTENTION EDUCATION SECTOR

Discounts are available to the Education Sector, contact our Educational Division for prices and product information.

Akhter House, Perry Road, Harlow, Essex, CM18 7PN, UK. Tel: (0279) 443521 Fax: (0279) 442623.

AMIGA

SAMPLING SUCCESS

Microdeal's AMAS Amiga sampler has established itself as one of the top sound sampler systems available. Indeed, with its combination of high-quality sampling and comprehensive MIDI capabilities, AMAS has earned itself many friends throughout both the Amiga world and the music industry.

According to MicroDeal, AMAS is even used by Paula Abdul, who is considered to be one of America's top female vocalists. The sampler can be seen being used by Paula in her song *Cold Hearted* which is just one of the many songs on the video *Straight Up*, which itself is available from Virgin Records.

AMAS's master editing screen can be seen in full at the start of the video running on an Amiga 500, with the camera actually panning in onto the computer screen before eventually fading into Paula singing.

AMAS is available for £99.95 from MicroDeal, who can be contacted on 0726 68020.

C FOR YOURSELF

Learning to program the Amiga's Intuition windowing environment form a language such as C can be a long-winded, and often frustrating experience. After getting over the initial shock of learning the C language (which can be a barrel of laughs at times), the user is suddenly confronted with a multitude of complicated data structures and routines that must be pulled together to produce even the simplest of C applications.

For all you struggling C programmers, however, help is at hand in the shape of *The Amiga C Manual* from that prolific PD software programmer, Anders Bjerin. Anders has been responsible for several PD utilities and games including the popular *Car*, *Sys* and *Miniblast* games. During his time as a C programmer, Anders has collected together a wealth of information which he has now passed on in the shape of his latest project.

The first edition of the *Amiga C Manual* is finished and is being launched as a shareware product (registration fee £15). The manual consists of more than 200 pages of incredibly concise documentation plus 71 fully executable examples together with source code. All this comes on three disks.

The manual covers all aspects of Intuition including screens, windows, gadgets, requesters and the IDCMP (Intuition direct communications message port).

The Amiga C manual can be bought directly from Anders for £20 (registration fee + £5 for three disks) by writing to the following address: Amiga C Club, Anders Bjerin, Tulevagen 22, 181 41 Lidingo, Sweden.

PRINTER PROBLEMS SOLVED

Printers are one of the greatest sources of frustration with the Amiga. To ease the pain, here are a couple of scorching hints to help you get a decent graphics printout from an Epson FX-compatible printer. Thanks go to reader A Edmonds of Latchford in Warrington.

1. Check the current density settings within Preferences – if you are using density 1 or 3 then watch out because the paper type setting effects the line feed distance (thereby leaving gaps between lines). If the paper type is set to single, then the line feed must equal the number of dots printed minus one third of a dot.

The wrong value here can result in horrible horizontal banding, which can make your print outs look pretty awful! The best way of working out the ideal setting for your printer is simple – experiment.

2. Try checking the printing gap setting inside your printer. Don't be put off by having to delve inside your printer – the results are worth the effort! On the Star LC-10, this adjustment is carried out using a small lever located at the left-hand side of the metal bar on which the print head travels. If in doubt about its location, refer to the manual that came with your printer.

Adjustment can make a surprising improvement in print quality. I have found that the different density settings in preferences tend to require different gap settings to obtain good results.

3. Remember to use a white background colour or select 'negative' in Preferences in order to save your printer ribbon (not to mention your ears).

EDUCATING AMIGA

LCL, a leading educational software house, has announced the release of the first ever complete GCSE courses for the Amiga. These GCSE courses cover the three most popular GCSE courses, maths (*MicroMaths*), English (*MicroEnglish*) and French (*MicroFrench*).

Each takes the user step by step from about age eight years to GCSE level, and consists of 24 programs, two books and a voice tape. All three courses have previously been available for other machines, and have sold very well indeed with units being sold in 24 different countries around the world.

MicroMaths covers algebra, geometry, trignonometry (brings back some bad memories), statistics (brings back some even worse memories) and arithmetic.

MicroEnglish covers all aspects of English language and because of its voice tape, can also be used as an EFL course (English as a foreign language).

MicroFrench covers spoken French, vocabulary, verbs and grammar, and is suitable for travelers and holiday makers as well as students.

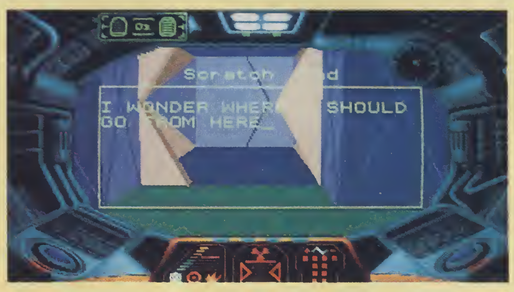
Each course is available for £24 from LCL on 0491 579345.

Jason Holborn

INFESTATION

AMIGA GAME of the WEEK

PSYGNOSIS • £24.95



It seems that everywhere you look these days there are games that have taken ideas from classic science fiction films *Alien* and *Aliens*. Psygnosis is the latest company to follow the trend with *Infestation*.

The plot tells of a scientific research station based on the desolate moon of Xelos in the outer reaches of the Galaxy. Intelligent and dangerous life forms have wiped out the crew and are using the base as a stepping stone to the invasion of other inhabitable planets.

The alien fighting force is waiting to hatch from eggs, which have been layed around the complex. You play Kal Solar, a mercenary soldier, in his mission for the Interplanetary Federation Governing Committee.

He must gain access to the research complex on Xelos and use cyanide cartridges to kill the eggs before they hatch. Throughout the complex there are all manner of dangers that Kal must watch for – changes in atmosphere, deadly guardian robots and decaying building-work to name but a few. There's no time to hang about though – take too long and the complex core will reach critical mass, which means goodbye Kal Solar!

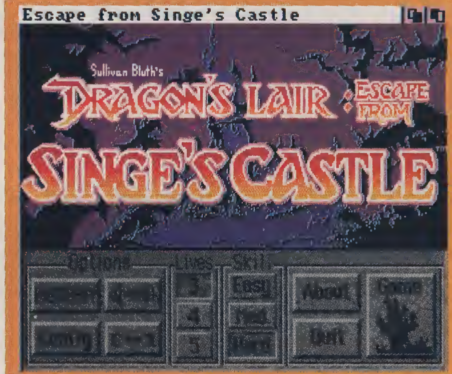
Infestation manages to produce a claustrophobic cyberpunk atmosphere, with its dark, oppressive scenery and tense sound effects. Filled 3D has rarely been put to better use on the Amiga, and the superb introductory sequence sets the feel for the game ahead.

The atmosphere serves to draw the player slowly into an involved and fascinating science fiction adventure which should have players stuck in front of their screens for weeks.

Followers of alien-filled movies and dedicated futurists alike should try the delights of *Infestation* for themselves, they will find plenty here to get the old teeth into. Good fun, and very playable.

Maff Evans

SINGE STRIKES BACK



Fans of the original *Dragon's Lair* game will be pleased to learn that Visionary Ltd of Rockville, USA has released a follow up in the shape of *Escape From Singe's Castle*, which sees the hero of the first game, Dirk the Daring, once more attempting to save the beautiful pricess Daphne from the clutches of Singe the Dragon.

Unlike its predecessor, *Escape From Singe's Castle* will both multitask and run happily on a 512K Amiga. The original was also criticized for the amount of time it took to load each screen; thankfully Visionary has fixed this problem with the implementation of new burst loader technology that knocks the loading time up to 10 times faster than the original.

To make things slightly easier, *Escape* includes a hint option that will draw arrows indicating which direction the joystick must be moved during the game. New screens included in this latest release feature the Lizard King and Mud monster.

PLAYING TIP

DRIVIN' FORCE

Load the game as normal and once the title screen appears, use the mouse pointer and left mouse button to click on the dots above the 'i's in the word "Drivin".

Once you have done this, start to play the game as normal but once the game starts up, press the HELP key. From this point onwards your vehicle will not fall off the hills. Notice that the words 'You Cheat' will appear on all countries when the main world map screen is displayed.

Dowling COMPUTERS

MAIL ORDER DIVISION

HEAD OFFICE:
Unit 48
Tyne Road
Sandy, Beds, SG19 1RB
Tel: 0767 81750/60
Fax: 0767 81730

Access
VISA

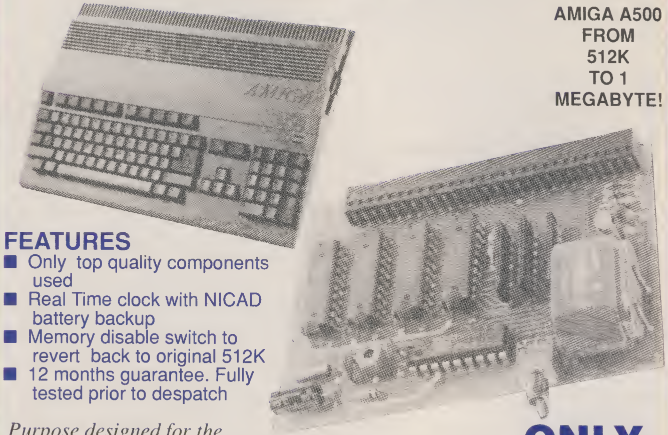
ALL PRICES INC VAT PLUS A FULL 1 YEAR GUARANTEE

AMIGA COMPUTERS & ACCESSORIES

FULL 1 YEAR GUARANTEE	RRP	OUR PRICE
AMIGA 500 + Mouse, modulator, Workbench 1.3, manuals etc	£379.99	£339.99
AMIGA 500 BATMAN PACK, inc DPaint II, Batman the Movie, etc	£399.99	£349.99
AMIGA 500 BUSINESS PACK, inc Protext, Superbase & Maxiplan	£679.99	£449.99
AMIGA 500 CLASS OF THE 90'S PACK, inc Publishers Choice, BBC Emulator	£573.85	£499.99
DOWLING AMIGA PLUS PACK - available only with above TENSTAR Games Pack + 10 3 1/2" disks mouse mat + Dustcover + Joystick	£249.99	£39.99
CBM1084S Stereo Colour monitor	£309.99	£244.99
CUMANA 1 meg quality drive - The Best!	£89.99	£79.99
AMIGA 500 Power Supply Unit	£69.95	£59.95
AMIGA A520 TV Modulator	£24.99	£19.99

THE MEGABOARD RAM EXPANSION 500

UP-GRADES YOUR AMIGA A500 FROM 512K TO 1 MEGABYTE!



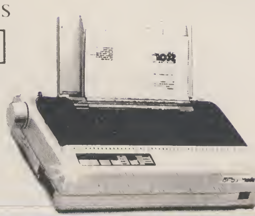
FEATURES
- Only top quality components used
- Real Time clock with NICAD battery backup
- Memory disable switch to revert back to original 512K
- 12 months guarantee. Fully tested prior to despatch

Purpose designed for the AMIGA A500

ONLY £59.95

THE star COMPUTER PRINTERS

= Registered Dealer =



Being Star registered dealers we only sell official UK machines which come with a full 1 year guarantee. Beware of inferior imported products

OFFICIAL U.K VERSIONS	RRP	OUR PRICE
STAR LC10 mono 144/36 C.P.S	£229.95	£149.95
STAR LC10 II 25% faster version	£263.35	£169.95
STAR LC10 Colour, 7 colours	£297.85	£189.95
STAR LC24-10- 24 pin multifont	£343.85	£229.95
STAR LC10 Sheet Feeder (auto)	£74.75	£49.95
STAR LC10 Mono Ribbons	£5.95	£3.95
STAR LC10 Colour Ribbons	£7.95	£5.95
STAR LC24-10 Ribbons	£7.95	£5.95
STAR LC10 Quality Dust Cover	£7.95	£5.95

★ 3 1/2" DISKS ★ 3 1/2" DISKS★ ★ 3 1/2" DISKS ★

All our disks are of the highest quality, are 100% certified and have 'made in Japan' stamped on each disk. We guarantee each disk is either Sony, TDK or JVC unbranded.

50	£29.99
100	£57.99
200	£99.99
400	£179.99
Roll of 1000 labels	£9.99

ART, BUSINESS AND MUSIC PACKAGES FOR THE AMIGA 500

FOR THE MORE DISCERNING COMPUTER USER	RRP	OUR PRICE
ART		
Photon Paint II	£69.95	£29.99
Deluxe Paint II	£49.95	£9.99
Vidi- Amiga	£99.95	£89.95
BUSINESS		
Kindwords version 2	£99.95	£49.95
Superbase 2	£99.95	£49.95
Maxiplan Spreadsheet	£99.95	£49.95
MUSIC		
Aegis Sonix version 2.0	£69.99	£34.99
Music - x 'state of the art music package'	£229.95	£149.99

NEW - CLASS OF THE 90's UPGRADE PACK

PACK COMPRISES OF THE FOLLOWING:- Midi Master Interface (£34.99), DPaint II (£49.95), Publisher's Choice (£99.95), Maxiplan 500 (£99.95), Superbase Personal (£59.95), Dr T's Recording Studio (£49.95), BBC Software Emulator (£49.95), Amiga Logo (£82.00), Mouse Mat (£4.39), 10 Blank Disks (£9.99), 1 years subscription to Amiga User (£23.00).

RRP £564.07 **OUR PRICE £199.99**

★ THIS MONTH'S SOFTWARE BARGAINS FOR THE AMIGA 500★

HURRY - LIMITED STOCKS	RRP	OUR PRICE
Batman The Movie	£24.99	£6.99
F18 Interceptor	£24.99	£6.99
New Zealand Story	£24.99	£6.99

ORDERING MADE EASY

☎ Order by phone by calling our Head Office quoting your Access/Visa Number

✉ Order by Post - make Cheques, Building Society Drafts or Postal Orders payable to Dowling Computers

Add £6.00 courier delivery for all orders over £100.00. Add £2 P&P for orders under £100.00.

SPECTRUM

SPACE BABIES

Who said sequels can't be better than the original? OK, so just about anybody who saw *Ghostbusters II*, *Back to the Future II* or *Son of the Flesh Eating Zombie Tomatoes from Zorch* did, and loudly. But in the case of Grandslam's recent follow up to Elite's original *Space Harrier*, any such comments would be down right nasty as well as untrue.

Yes, *Space Harrier II* is a sequel worthy of the original and, although the years since the first one came out haven't seemed to bring about the huge advancements in graphics or sound you might expect, the 3D monster blasting action is even more frantic and life endangering this time around.

Of course, if the rather bizarre concept of controlling a hovering hero, viewed from behind, and blasting a large range of alien baddies as they fly towards you didn't appeal when the first *Space Harrier* came out all those aeons ago, then this won't either.

Those who wrote off countless joysticks on the original, though, will find a brand new challenge when they buy this. Grandslam should be offering, at much reduced rates, a darkened room to lie down in after play.

CALLING ALL EDS

A few years back it seemed like every Speccy owner worth his rubber keys and dodgy power lead was hidden away in a back bedroom somewhere, putting together his own fanzine.

Alas, the alternative publishing sector has slowly dwindled until now only three or four titles turn up for a regular inspection. A rum state of affairs, I'm sure you'll agree.

So if you edit, contribute to, or read a fanzine which covers the Spectrum and fancy an increase in readership, prestige and photocopying bills, send full details to me, Robin Alway, at *New Computer Express*, 30 Monmouth Street, Bath BA1 2AP.

Furthermore, I know I keep ranting on about public domain software for the Speccy, but it is for your own good. I'd never forgive myself if you missed out on a constantly-expanding source of free, or ridiculously cheap, software that you can copy and distribute among fellow Spectrumers without fear of a dawn raid from the boys at FAST.

Anyway, I bring the subject up yet again because I've just received the latest list of tempting PD treats from The Speccy Sector.

From a starting collection of 15 programs, the library has grown like a horror film monster and, at last count, had an impressive total of 65 titles on offer. Basically, if you don't find one piece of PD that interests you from The Speccy Sector's range, you're either not trying or just being thoroughly unreasonable.

Chief librarian Owen Brown is making all the PD on his shelves available for the price of an envelope and return postage only, suggesting he's a lot more generous than the librarians you meet in more traditional, book-filled establishments.

So, if you want to see the kind of program that resides in the Spectrum public domain send an SAE for a list to 1 Roxwell Road, Chelmsford, Essex CM1 2LY. Owen tells me it's all Coupé-compatible as well.

Moreover, Global Games has got a few new releases out for your delectation. *The Limehouse Mystery* is a 48K adventure that expects you to recover a Byrrium Accelerator which a dastardly chap called Dr Sin has stolen, and charges you £1.99 for the privilege.

Global's other new adventure, *Survivor*, has an eco-disaster plot with the object of the game being to escape the floods that have flooded the world. Again, it costs £1.99 and, as with *The Limehouse Mystery*, is incompatible with Plus 3 and Plus 2A Spectrums.

Global Games resides at 4 Kilmarton Lane, Carluke, Lanarkshire ML8 5RT.

Robin Alway

COWBOYS AND INDIES

The supply of home brewed Spectrum software seems to be on the increase and now drops through my letter box with almost bill-like regularity. But the sparse, photocopied instructions and humble packaging of indie software makes a change from the fridge-sized boxes and thousand-page novels that come with professional products.

The latest piece of grown-at-home software I've received is from Vinsoft – a pretty enterprising outfit by all accounts – with three games already jolted into life and loads more planned for release this year.

The free sample of Vinsoft's wares that I received just two mornings ago is entitled *Spi Droid*, the latest maze/platform extravanganza. The idea in this one is to guide a rather basic-looking droid through lots of trecherously-designed screens in a game not dissimilar in structure to that elderly 10p-guzzling arcade brontosauraus – *Marble Madness*.

Unfortunately, it's pretty much unlike that old classic, both graphically and also in terms of addictiveness. While it's not badly programmed, the jerky scrolling and unresponsive controls provoke swear words and, even compared to your average, run-of-the-mill budget effort, it looks somewhat unprofessional.

However, the actual game design is sound enough and the whole thing proves surprisingly addictive although maybe not quite to the point of justifying the £2.99 price tag. Still, if you fancy checking out the underground world of independent Speccy software, this wouldn't be a bad place to start.

***Spi Droid* costs £2.99 from Vinsoft, 11 Willow Grove, Bare, Morecambe, Lancs LA4 6JJ. If you want more details on any of Vinsoft's games which include boxing and grand prix strategy simulations, heave an SAE in the right direction.**

PCW

LET THIS BE A WARMING

It seems amazing that, despite being warned of the dangers of the greenhouse effect every day on TV and in the newspapers, greenhouses are still openly on sale and people are still buying them. Doesn't anyone care about the environment anymore?

Anyway, ecological types can now enjoy a new game that doesn't involve the usual activities of shooting things. *Green*, from Classic Software, urges you to save the rainforests by sabotaging the effects of the lumberjacks.

At £12 this new offering is great value and fun to play – if bewilderingly fast to begin with. Details can be had from 12 Manor Drive, Stewkley, Leighton Buzzard, Bedfordshire LU7 0JE.

RIDICULOUS LINK

Unlike the Arctic fox, the polar bear and people who can't swim, accounts packages are not species endangered by the greenhouse effect. In fact, the latest addition to the accounting pack is *Total Accounts* from Derek Rogers Computing of Glasgow.

It covers invoicing, sales, purchase and nominal ledgers, and has been designed for ease of use – all data is checked on entry. The Amstrad Professional User Group has called it 'astounding', hopefully for the right reasons – the package costs the tidy sum of £84.50. Details on 041-334 8902.

SPACE TRAVEL

If you find your disks fill up too quickly, here are two tips on getting the most out of your disk space:

1. Try keeping any letters to the same correspondent in the same file. Add new letters on to the end of the existing letters in the same document as follows.

Edit the file and go to the end with `[SHIFT] [DOC]`. Go to a new page with `[ALT] [RETURN]`. Now press [f1] (*Loco* 2) or [f7] (*Loco* 1) and 'Insert file'. Give the `TEMPLATE.STD` as the file to insert.

Back in the main file carry on as usual. When printing, choose 'Print some pages' and just print the relevant section. This saves space and has the advantage of letting you easily look up what you wrote before.

2. Old files that you only need for archive or backup purposes can be stored as ASCII. This loses all bold, italics etc, non-alphabetic letters and layouts, but saves you loads of space. Use [f1] from the disk manager, ([f7] *Loco 2*) select 'Make ASCII file', give a name and choose 'simple text'.

Then erase the old version. To view the ASCII version, create a new document and 'Insert text' ([f1] *Loco 2*, [f7] *Loco 1*) giving the ASCII file as the one to insert.

AND FINALLY...

Ever spilled coffee on your keyboard? If it doesn't work afterwards, the solution may be to put the keyboard in a bucket of water and then dry it out. No, this isn't a premature April fool; I have it on good authority from a number of correspondents who swear they cured their sticky keys like this. I haven't tried this myself and would recommend it only as a last resort – but there it is anyway!

Rob Ainsley

MSX

LETTERS

It's about time that I answered a few letters, several of which deal with the apparent lack of MSX software stockist, particularly in the north and north east of fair old England.

A Mrs Ivey of Consett, Co Durham has searched high and low in the Tyneside/Durham area, and has been unable to find a stockist of MSX software. This is also the case in Blackburn, Lancs, according to Dr Tunde Gbolade.

I have had many more letters from MSXers in these areas who find the same sorry state of affairs. It's not as if there is a shortage of MSX software, because to my knowledge there are at least 100 titles still currently available.

If you live in any of these areas, and know of a stockist of MSX software, can I beg you to write in to the MSX column in *Express*, and I will add these stockists to my list. In the meantime, it appears that these MSX users in the North will have to use the excellent mail order facilities that companies such as Tavistock Hi-Fi, DL Chittendens and Capri Marketing have to offer.

The aforementioned Dr Gbolade also asked in his letter if I could recommend a colour printer for use on his Pioneer PX/7 computer. As I have never used a PX/7 I am sorry to say that I have no idea which type of printer is supported by the software you are using for titling, but most programs support MSX and Epson printer standards.

If this compatibility is the case with your software, I suggest you try out the excellent Star LC-10 colour printer, which offers exceptional value for money and Epson compatibility.

AND MORE QUESTIONS

You're going to have to wait another week for more pokes from the Shadow Weaver, because this week I am going to answer a question of his. He asks if I can explain how to input pokes without the software overwriting them.

Well, Weaver, most pokes, particularly short ones, can be inputed before the game is loaded. For example, on my MSX 2, to make some MSX 1 games work, I have to first type in the poke -1170. I then load the tape in the usual way. This will not work with disks that auto-boot, as a reset is needed after the poke, and this clears the memory, and removes the poke.

If a longer poke is needed, and you find it a chore to type it in each time you wish to load a game, make up a short program which contains the poke statements, and make the last line of the listing a command to 'LOAD' the game you wish to play. Here is a short example ...

```
10 rem * MOLECULE MAN POKE *
20 SCREEN 0: KEYOFF
30 PRINT:PRINT" ** LOADING **"
40 POKE 38379,0:POKE 38384,0
50 RUN"CAS:"
```

Save this program to tape, using `SAVE"poke:"` and load it into the computer before you load in the game, using the `LOAD"poke:"` command. The above program will auto run, and line 50 will load in the game.

I would normally enter pokes this short in direct mode, but the example serves.

Keith Neal

CPC

DRIVING AMBITION

Ocean's toughie *Chase HQ* has, it seems, a built-in cheat. All you have to do is re-define the keys as S,H,O,C,K,E,D, and 'TEST' will appear at the bottom right. While you're playing you can now simply press '1' to restart the level, '2' to move to the next level, '3' to see the end game display (only if you're too weedy to do it the hard way), and '4' to get an extra life.

VIRGIN GOES GUNNING

OK, so you've got your snazzy new Virgin/Mastertronic lightgun – now all you need is something to shoot! And Virgin has obliged, with three budget releases you can play either with your weapon or off the keyboard.

You see each of these games is recorded on both sides of the cassette. Side A contains the lightgun-compatible version, side B the conventional keyboard offering.

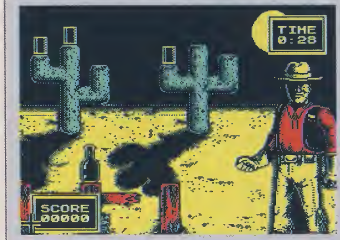
And at only £1.99 apiece, can you go wrong? Well, er, yes you can, actually...

Billy the Kid , for example, looks perfectly cut out for release on Lightgun format. After all, what better game for a gun-toting gamester?

First of all, though, you have to practice your shooting skills. I mean, you can't just pick up a gun and go robbing banks and holding up stagecoaches willy-nilly, you know. No, you've got to be able to shoot straight, first. Which is why you have to hit the required number of bottles on the first stage.

Amass enough points, and you get to try your hand at bona fide bank robbing. Unfortunately, things go wrong, and you have to shoot your way out...

Get through that stage, and you must face the sheriff in a final showdown. You stand back-to-back, take five paces, turn – and shoot. Which is why all that target practice at the start was such a good idea...



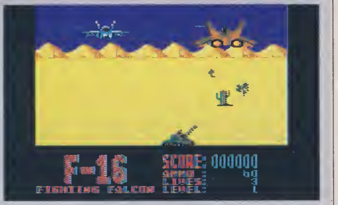
• *Wanna be an outlaw? First you gotta learn to shoot straight.*

Billy the Kid is a pretty obvious Speccy port, but it doesn't look bad for all that. Graphics are unambitious, but they do the job. The only real criticism is the gameplay – or lack of it. Still, it'll keep you occupied for a couple of hours on a wet Wednesday afternoon.

Which is more than can be said for *F-16 Fighting Falcon*. It's a rear-view flying shoot-'em-up that looks more like *Afterburner* than *Afterburner*. So far so bad (depending on what you think of *Afterburner*, that is).

The worst of it, though, is that you control your aircraft by shooting it! Land a slug in the right place and you can make it perform a quick evasive move to get out of the way of an attacking plane/tank, etc.

But when you consider that you're shooting at them as well, the whole thing becomes ever so slightly indiscriminate. It's tempting to just sit there waving the gun around and shooting everything on sight. If you hit the bad guys – good. If you hit your own plane...

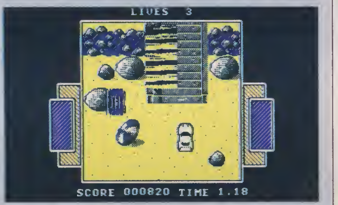


• *Shoot the bad guys. Shoot your plane. Shoot everything in sight.*

After that little airborne outing, you could be forgiven for thinking that the third in Virgin's trio of budget Lightgun releases would have to be better. Well, wait no longer, because it ain't.

American Turbo King is an overhead-view stunt car race where you have to guide your motor across hazard-infested territory, negotiating ramps and belligerent attackers all the way.

So how do you control a car with a lightgun? Well, after playing *Turbo King* for half an hour I still couldn't tell you. The idea is that you steer by shooting at two arrow icons on either side of the screen. You can select forward or reverse by shooting at your car. The packaging says to 'be merciless –it's the only way to survive'. If you ask me, it should be 'play the keyboard version – it's the only way to control the ?!*&er!'



• *You're lined up with the ramp now, so DON'T TOUCH THE CONTROLS.*

Still, at only £1.99 apiece, and since you get a keyboard version too, well... yes, OK... they're really not too bad.

SCHOOL'S IN!

OK, so we all know what a wonderful machine the CPC is for playing games on. We all know what a wealth of darned good serious software there is out there, too.

But have you ever thought of your CPC as a serious educational tool? Well, maybe you should start.

Apart from the obvious commercial successes like the *Fun School* series, a lot of specialist educational suppliers are now writing for the CPC. That moth-eaten old relic – sorry Andrew – er that fine mainstay of educational computing the BBC still gets the lion's share of new releases, but other micros – including the CPC – are catching up.

Rickitt Educational Media is the UK largest distributor of educational software, and it has a list of 250 CPC titles! These include Mirrorsoft's *First Steps* with *Mr Men* for 4-8-year-olds, *Physics I* from School Software for 12-16-year-old Einsteins and *Renaissance Europe* for 16-plus-year-old history students.

Rod Lawton

C64

OUT ON LOAN

We've all become familiar with the idea of renting video tapes, but what about software tapes? Now for Commodore 64 owners the software library has arrived in the form of a company calling itself Ace Software Library.

As far as I know this has nothing to do with *ACE*, the magazine. Tapes are charged out for a fee that ranges from £1 to £1.50, (with another 50p for disks) on a seven-day hire basis, and there's also a generous helping of software and hardware discounts, which are no doubt advertised in the Ace Software Library monthly newsletter.

For a free catalogue send a stamped, addressed envelope to Ace Software Library, who live at 14 Chippendale Court, Finaghy, Belfast BT10 0DU.

OOPS!

Slight error in *Express* 63, in the program listing for that week. Line 20 should have read:

```
20 POKE 49152+N,A:N=N+1:GOTO 10
```

and the first data statement in line 30 should have been a 238 and not what was printed.

I've checked my original file and found that I had got it right! Makes a change, I know. Anyway, thanks to Stuart Monteith for pointing this out to me, but then he should know because he wrote the program in the first place.

COUNTING THE PENNIES

For the many fanatical followers of *Defender of the Crown*, a few helpful POKEs from an unknown person from Guildford. (If A Grue is a real name then he or she should sue Infocom and get in touch with the 'real' Grue in Ormskirk).

Each of the following POKEs affect the price of the item named after them, so put in whatever you feel like. 0 is acceptable as a price, by the way. So:

```
POKE 7189,price of soldier:
POKE7190,price of knight:
POKE 7191,price of catapult:
POKE 7192,price of castle.
```

FAST REPAIRS

If you're the sort of person who suffers withdrawal symptoms when you are deprived of your C64 for more than 48 hours, then panic no more. A company in Wigan promises a 24-hour turnaround by post of any damaged C64.

It only does this rapid turnaround on 64s, by the way; readers straying over from other columns may have a longer wait. The standard charge for an ailing computer is £25 (including fully-insured return postage, but not covering peripherals) and the people to write to are Hindley Electronics.

The company resides at 97 Market Street, Hindley, Wigan, Lancashire WN2 3AA, or give a call first to sort things out on 0942 522743.

ADVENTURERS UNITE!

Adventure fanatic Martyn Westwood has decided to form his own company, Interactive Technology. For details of software to date, write to PO Box 146, Sheffield S13 7TY.

Pete Gerrard

YOUR FORMAT

PC 10
ST 12
Amiga 14
Spectrum 16
PCW 16
MSX 16
CPC 17
C64 17
Atari XE 18
QL 18
Archimedes 18
BBC 18

QL

FORTH

One language I haven't mentioned in this column is Forth. Forth was invented by one Charles Moore as an efficient way to control a telescope – moving it around, switching filters in and out and so on.

Moore developed the languages in the good old days when most minis and micros had 16K of RAM, maximum. Forth is a very compact language, and Forth programs are extremely compact, owing to the use of 'threaded code' – the program is transformed into a set of sub-routine calls.

One writes programs in Forth by defining 'words'. Once a Forth word has been defined, it effectively becomes part of the language – Forth is 'extensible'.

Owing to the use of threaded code, Forth programs run quite quickly and, if programs need to be speeded up even further, in-line assembly language can be used, as with BASIC on the BBC.

For several reasons, Forth has never been particularly popular. Perhaps its biggest drawback, as far as most programmers are concerned, is its use of a stack in conjunction with Reverse Polish arithmetic notation.

Thus, to add two numbers you have to push them on to the stack, followed by the addition operator. The sum of the numbers is now on top of the stack and may be printed, or used in another calculation. To give you some idea of what Forth looks like, the following statement creates a new Forth word called 'add1', which adds 1 to a number and prints it:

```
: add1 1 + . ; [Enter]
```

The new word is used as follows:

```
5 add1 [Enter]
```

printing '6'.

Forth is one of those languages that you either love or loathe. Forth aficionadoes claim that they can write an application in Forth in a fraction of the time it would take using one of the more conventional languages.

A good implementation of Forth is available for the QL from Digital Precision. SuperForth was written by Gerry Jackson (who also developed DP's Small C compiler) and costs £39.95.

The good people at DP can be reached on 01-527 5493.

John Torofex

68008 CONTROLLER

Leon Heller has designed a simple 68008 system which can be connected to the QL via a serial port. Using about 10 devices and, with its own EPROM programmer, it is ideal for learning about 68000 hardware. Software can be developed on the QL, and downloaded to the controller, for testing and debugging.

The prototype system was built using wire-wrap techiniques on a single Eurocard (160mm x 100mm) and cost less than £40. Details will be published in the QUANTA newsletter.

BBC

GENIE DOES

Confusion, exhilaration and frustration. Everybody who has ever used a computer for their work goes through the same three stages. You start off cautiously, not sure what to do. Then you master the machine, and suddenly you can do everything. Finally, you seem to spend all your time waiting for the computer to finish some small task. A familiar story to most people, but what can be done about it?

The simplest way is to buy a faster computer. But another, cheaper, route is to get more out of your present hardware. One way is by switching from program to program with no waiting. On IBM or Macintosh computers many such programs, called respectively TSRs and DAs (terminate-and-stay-resident and desk accessories) exist.

Three components are necessary: an area of memory set aside for the new program and its data, a way of switching to that program, and a method of returning the computer to its original state when finished.

On the BBC two out of three are fairly easy, but finding enough memory can be a problem. Genie from PMS is a solution. Coming with its own 64K of battery-backed RAM, it's an address book cum diary cum notebook. Cousin to Genie is Genie Junior, but I would not recommend it unless you have the Challenger RAM disk to reduce access times.

Another practical application is screen dumping; notable products include Screenprint and Colour tool. You could try *Anchor*, available from Argus Specialist Publications.

A word of warning – although these programs are legally written, many BBC programs are not. Compatibility checking is therefore strongly recommended.

Following on from the above comments about compatibility of programs for the BBC, here are steps you can take to avoid some common problems:

Program expects 'page' to be of a particular value.

Solution, add a small routine to check 'page', then download the main program in memory.

Program uses keywords only supported by BASIC II.

Often occurs when opening files an gives a 'No Such Variable' error in BASIC I. You should re-write using BASIC I keywords – best to acquire BASIC I for testing purposes.

Program runs out of memory – a particular problem for owners of the Electron model.

Try switching to a lower mode, or load and run the program in parts. As a last resort, you may use some of the memory allocated for tape or print buffers.

VETERANS DELIGHT

The end of the Master 128 has been widely predicted (even by me). But nothing has yet been announced by Acorn. So could it be that the old warhorse will carry on for some time to come? Let's hope so.

Andrew Brown

XE

COMMS CAPERS

I hope you've all logged onto The City by now and experienced the thrill of finally discovering a bulletin board written for, running on and supporting the Atari 8-bit. By the way, as well as the V21/V23 speeds (300/300 and 1200/75 respectively), The City also supports V22 1200/1200, which increases the efficiency of file transfers and scolling on-screen text by leaps and bounds. Once you've used V22, you'll never go back to 300/300 baud communications.

If you haven't logged on, perhaps I ought to tell you about some of the goodies that await you. Product news, hardware and software reviews and programming sections make up the some of the most interesting 8-bit sections this side of page 6. There's a post box to enable you to send E-mail (electronic mail) to other users and a 'pub' where you can let off steam about the 8-bit and its lack of support and the generally poor state of the computer industry.

A support line offers a helping hand when needed, and there's a bulging public domain software section where you can download everything from word processors to programming and communications utilities. And of course, there's the Antic's Roadshow section, where you can make – almost – direct contact with me. A special mail-box in this section enables you to tell me what you'd like to see in column (or tick me off about things you *didn't* want to see).

Next time, I'll describe the equipment needed for accessing the comms world.

Edmund Blake

ARCHIMEDES

SECOND IMPRESSION

I've held back from commenting on *Impression*, the document processor from Computer Concepts, as the version the company supplied last autumn was very much pre-release.

But just last week CC sent in a more recently released version of the product, which on first look seems still to have some problems.

First you should know that the system I'm running it on is not ideal. Although CC makes much of the fact that the program is entirely ARM-coded, therefore small, and therefore quite suitable for a 1Mb Arc, it's really less than happy with that amount of memory.

My machine has a second floppy – 5.25-inch – and between the two there should be ample disk storage for small documents. The program needs a three disk start up, with the program and drivers on one disk, fonts, font manager and system folder on another, and the document on a third which replaces the program disk once it is loaded.

This all works pretty well, though you also have to increase the font cache allocation to around 128K or every re-draw forces the program to re-read its fonts from disk, which is painfully slow. There still seem to be a lot of errors coming through from the program, all neatly handled in RISCOS alert boxes. However neat and witty the messages, though, too many force a re-start.

The main problem is in getting any output from the LaserJet driver supplied with *Impression*. The program has the very useful facility to reproduce more than one page on a sheet of paper, ideal for draft prints, but even on a one to one basis, things are not good.

The program seems to create a small part of the page image on the printer, but then starts sending straight ASCII characters – around 10 of them per sheet and an awful lot of sheets. Unless you want to complete the destruction of the Scandinavian pine forests, all you can do at this stage is abort the printing.

Computer Concepts technical support line runs from 1pm to 5pm only, and the deadlines on this column mean you'll have to wait a week for the next exciting instalment.

MAKE MINE MONO

The *Impression* manual, which is an excellent and helpful guide by the way, makes several good points about the choice of monitor for DTP. It starts by stating that multisync monitors are a good deal better than the medium-res Acorn-style units.

It then goes on to point out, though, that a mono multisync sports several and distinct advantages over some of its colour counterparts.

Not only can it display all the modes the colour unit can, but the picture will be sharper – only one electron gun instead of three – and it's likely to cost about a third of the price.

Personally, I'd go so far as to recommend a NEC Multisync GS, which is a full grey-scale unit and can be picked up for around £120.

ULTRA IMITATIVE MACHINE

***UIM*, from Fourth Dimension, promised to be one of the best games to date for the Arc. It is certainly a massive game, with many thousands of underwater ports to visit, and numerous enemies to sink. But methinks the scenario was changed at a late stage to try and make it a little bit less like *Elite*. And, unfortunately, it hasn't worked.**

Indeed, the game is very like *Elite* – it involves trading, flying and shooting at things, it has similar controls and the playing screen with its forward view and 3D scanner beneath is a dead ringer for Braben's space game. That's not to say this new offering is bad – just that the rejigging is rather transparent.

And the effects don't have Braben's flair, either. The stars – or are they bubbles – are all square, the other ships, while solid, are rather sluggish and you're left feeling that there's little new here. If you liked *Elite*, I'm sure you'll be interested in *UIM*,.

I cannot guarantee that you'll love it, though. At any rate, the good people at Fourth Dimension can be reached on 0742 700661.

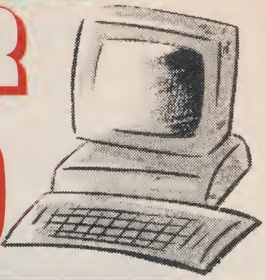
FONTS DEFERRED

Yes, I know I said there would be more about the Font Foundry's fonts this week. But, I am dreadfully sorry, but the company hasn't sent them in yet.

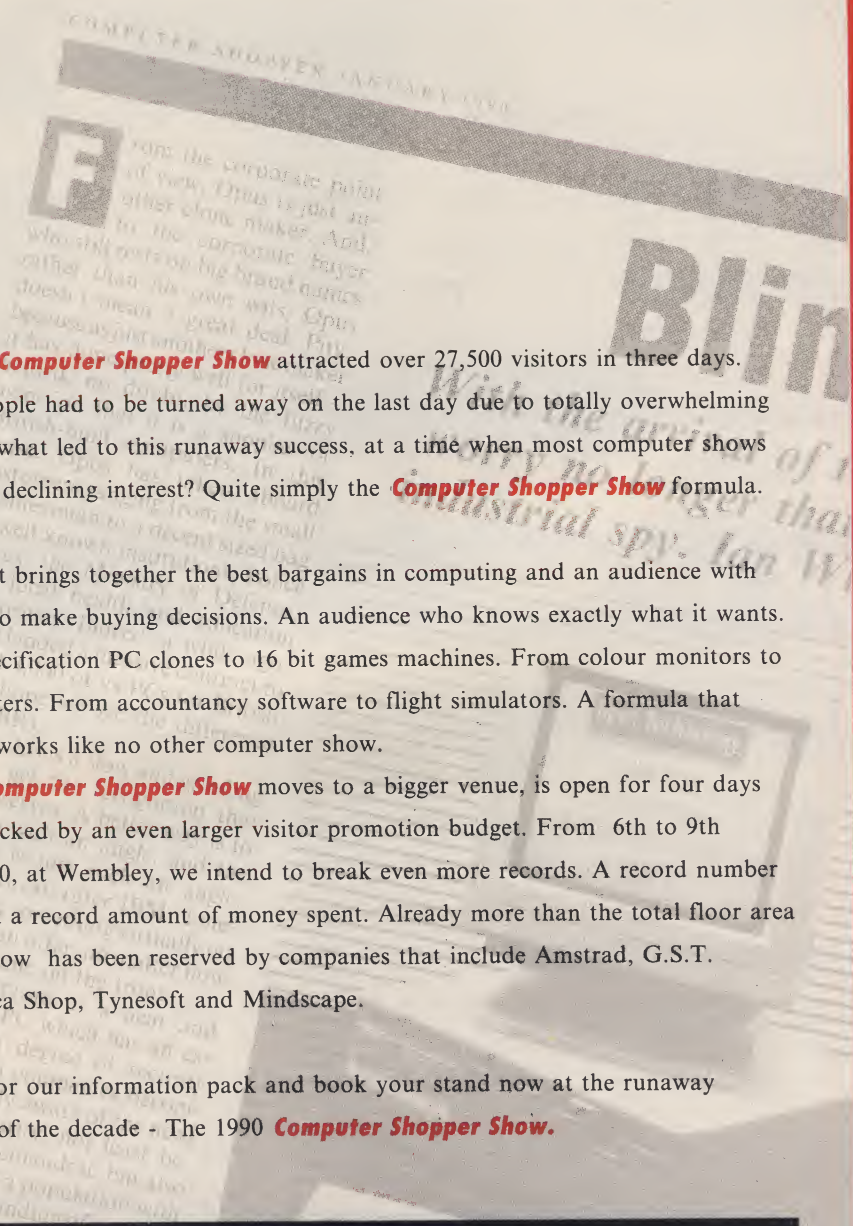
Bertrum Carrot

'The r
show
done.
advis
the in
this is
effect
to att
defini
return
Jerem
Digit
Inter
"An ex
and su
Chris
Amstr
"A ver
show
already
stand
show c
taking
stand i
positio
Gareth
Amstr
Club
" A ver
and a g
booster
extrem
our pro
droves.
Anil C
RSC

COMPUTER SHOPPER SHOW 1990



6-9 DECEMBER 1990 *WEMBLEY CONFERENCE CENTRE*



THE first ***Computer Shopper Show*** attracted over 27,500 visitors in three days. Over 3,000 people had to be turned away on the last day due to totally overwhelming demand. And what led to this runaway success, at a time when most computer shows are experience declining interest? Quite simply the ***Computer Shopper Show*** formula.

A formula that brings together the best bargains in computing and an audience with money ready to make buying decisions. An audience who knows exactly what it wants. From high specification PC clones to 16 bit games machines. From colour monitors to the latest printers. From accountancy software to flight simulators. A formula that we've proved works like no other computer show.

The second ***Computer Shopper Show*** moves to a bigger venue, is open for four days and will be backed by an even larger visitor promotion budget. From 6th to 9th December 1990, at Wembley, we intend to break even more records. A record number of visitors and a record amount of money spent. Already more than the total floor area of the 1989 show has been reserved by companies that include Amstrad, G.S.T. Software, Silica Shop, Tynesoft and Mindscape.

Simply send for our information pack and book your stand now at the runaway success event of the decade - The 1990 ***Computer Shopper Show.***

CONTACT

Lynda Williams or Gail Blincow
The 1990 Computer Shopper Show
Blenheim Database Exhibition Ltd,Europa House,
Adlington Park. Adlington, Macclesfield SK10 4NP
Tel: 0625 879970 Fax: 0625 879961

Dennis

BLENHEIM DATABASE
EXHIBITIONS

'The most successful show we're ever done. I would advise anybody in the industry that this is the most cost effective exhibition to attend and we definitely intend to return next year."
Jeremy Rihill
Digita International

"An extremely busy and successful show."
Chris Anstey
Amstrad

"A very successful show for us. We've already booked our stand for this year's show and will be taking a bigger stand in a prominent position."
Gareth Williams
Amstrad User Club

" A very good show and a great morale booster. We did extremely well and our products sold in droves."
Anil Chopra
RSC

" Our dealers at the show reported very good sales. We have already booked our stand for this year."
Lynne Evans
GST Software

"A great success. The show provided a forum for customers to buy different formats under one roof and in so doing proved extremely popolar."
Roy Stoker
Silica Shop

" We were stunned at the level and quality of attendance. "
William Poel
Paperback Software

"People who came were definitely interested in buying and a lot of money changed hands. We will definitely be there this year."
Leslie Cupitt
Computer Express

JOHN RUSSELL & CO
VALUERS & AUCTIONEERS

FORTHCOMING AUCTIONS

of computer hardware & electronic equipment

Saturday 24th March 1990
Kempton Park Racecourse, Sunbury, Middlesex

1200 lots of microcomputers & peripherals inc:
IBM & Compatible systems - IBM P/S 2 30,50,60 & 80 systems, Compaq 286 & 386, Deskpro & portable systems, Apple Mac Plus & SE systems, Laserwriters & other laser printers

Future Sale Dates:

Saturday 7th April 1990
Canterbury College, New Dover Road, Canterbury, Kent

Saturday 14th April 1990
Canons Leisure Centre, Madeira Road, Mitcham, Surrey

Viewing & Testing 9.00am / Sales Start 10.30am

For further details and catalogue please contact:

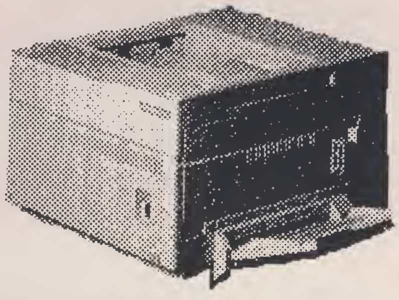
01-681 5413

Selsdon House, 34 Selsdon Rd, South Croydon, Surrey CR2 6PB

SPECIALISING IN COMPUTER HARDWARE
& COMMERCIAL EQUIPMENT

UK HOME COMPUTERS

CITIZEN LASER PRINTER SCOOP



Don't miss this superb once-only offer. The fabulous Citizen Overture 110+ Laser Printer. Look at these features:- 10 pages per minute, Epson fx-85, IBM Proprinter, & Diablo Compatible. 300X300 dots per inch, 512k on-board memory, Dual interface, i.e. Centronics & RS232, Output in either landscape or portrait, face-up or face-down,approx. size 19" X 17" X 12.5". The average selling price for this printer is currently around £1000.00p plus VAT. Look at our price and get your order in now to avoid being disappointed. Stocks are very limited at this price.

OUR PRICE £699.95p

Plus VAT & Carriage TOTAL £820.00p

12 Month on site warranty included

Access

VISA/ACCESS orders welcome. Prices subject to change without notice. All transactions are subject to our standard conditions of sale, available upon request. Personal callers welcome by appointment.

VISA

UK HOME COMPUTERS
82 Churchward Ave. Swindon,
Wilts SN2 1NH (0793) 695034.

BEST

- Bargains
- Advice
- Prices
- Offers
- Jobs

SHOPPING EXPRESS

The *weekly* computer market place for people *serious* about buying

● THIS WEEK'S BUYERS' GUIDE

ST ESSENTIAL SOFTWARE

Comprehensive guide to the vital software for the 520, 1040 and Mega STs

JOB SHOPPING?

Check out our recruitment section inside

ALSO INSIDE

● **Take** advantage of our latest mail order offers.

● **Benefit** from our reliable buyers' guides. No waffle, just facts.

● **Pick up** bargains galore from dealers and readers from all over the UK.

● **Score** on the free reader adverts. Sell your products for *absolutely no charge!*

Save your cash, save your time

DOLAN ELECTRONICS LIMITED

DANFFORDDGAR HOUSE
CARMARTHEN, DYFED
SA32 7DU.

SALES: 0267 234444
FAX: 0267 231863

all prices ex VAT & Delivery
CWO or COD available

specifications subject to change.

£399!

12MHz XT

- ★ 640Kb RAM expandable to 1Mb on board
- ★ 12MHz CPU switchable to 4.77MHz
- ★ 102 Key Keyboard
- ★ 360Kb 5 ¼" Floppy Drive
- ★ 2 Serial Ports
- ★ 2 Parallel Ports
- ★ Real Time Clock/Calendar
- ★ 5 Free Expansion Slots
- ★ Hercules Graphic Card & High Res Mono Monitor
- ★ EZ-DOS vers. 4.01 & Basic
- ★ Full Set of Manuals & Documentation

Single Drive 12" Green Mono System	£399
40Mb 30Ms 12" Green Mono System	£599
14" Flat Screen Paper White Mono ..	add..£35
14" EGA Colour Monitor	add..£226
720Kb 3 ½" Floppy Drive................	add...£65
640Mb to 1Mb RAM Upgrade..........	add..£45

£795!

16MHz 386-SX

- ★ 1Mb RAM expandable to 8Mb on board
- ★ 16MHz CPU switachable to 6MHz
- ★ 102 Key Keyboard
- ★ 1.2Mb 5 ¼" & 1.44Mb 3 ½" Floppy Drives
- ★ 2 Serial Ports
- ★ 2 Parallel Ports
- ★ Real Time Clock/Calendar
- ★ 5 Free Expansion Slots
- ★ Super VGA Card w/256Kb RAM High Res Mono Monitor
- ★ EZ-DOS vers. 4.01 & Basic
- ★ Full Set of Manuals & Documentation

Dual Drive Mono System as above	£795
20Mb 40Ms Mono System	£995
45Mb 25Ms Mono System w/32Kb Cache	£1145
14" VGA Colour Monitor	add...£200
14" Super VGA Colour Monitor	add...£350

£2195!

33MHz 386

- ★ 4Mb RAM expandable to 16Mb on board
- ★ 33MHz CPU Landmark Speed 44MHz w/32Kb Cache
- ★ 102 Key Keyboard
- ★ 1.2Mb 5 ¼" & 1.44Mb 3 ½" Floppy Drives
- ★ 45Mb 25Ms Hard Drive w/1:1 Interleave 32Kb Cache
- ★ 2 Serial Ports
- ★ 2 Parallel Ports
- ★ Real Time Clock/Calendar
- ★ 5 Free Expansion Slots
- ★ Super VGA Card w/512Kb RAM 1024x768 High Res Mono Monitor
- ★ EX-DOS vers. 4.01 & Basic
- ★ Full Set of Manuals & Documentation

Complete System Mono	£2195
Complete System VGA Colour	£2345
Complete System Super VGA Colour	£2495
130Mb 18Ms Hard Drive Upgrade	add...£350

MISCELLANEOUS

XT 40Mb 40Ms Hard Drive Kit	£199
XT 40Mb 40Ms Hard Card	£215
AT 45Mb 25Ms Hard Drive	£275
60mb Internal Tape Backup	£450
60Mb External Tape Backup	£425
360Kb 5 ¼" Floppy Drive	£40
1.2Mb 5 ¼" Floppy Drive	£55
720Kb 3 ½" Floppy Drive	£65
1.44Mb 3 ½" Floppy Drive	£85
Microsoft Windows vers 2.03	£25
Logotron 8 in 1 software	£30
Genius Mouse w/Dr-Halo Software	£35

The **DOLAN COMPUTERS** have the reliability, performance and price that leaves the competition standing. Our professional quality systems come fully configured and ready to run. The DOLAN COMPUTERS were the outright winners in a recent survey of over 50 computers.

The DOLAN COMPUTER range are unbeatable on specification and price.

THE SHOPPING EXPRESS BUYER'S GUIDE TO

ST ESSENTIALS

WORD PROCESSORS • SPREADSHEETS • ACCOUNTING • DATABASES • GRAPHICS • DESKTOP PUBLISHING • MUSIC • GAMES • UTILITIES

The ST is a remarkable machine – blessed with an excellent range and variety of both serious and leisure software. And all at a price that's a giveaway for such a powerful, 16-bit beast. Its different resolutions allow it to support everything from precision DTP to multi-colour artistic extravaganzas.

The Express Guide to ST essentials takes you through the best products available in the wide world of ST software: the word processors that can handle everything from business letters to a complex cross-referenced thesis; the databases to keep those club or customer records; spreadsheets that solve those financial crises; music packages that make the ST the choice of the professional muso; games that take over your life; graphics packages that make you machine a desktop publishing tool. Now read on...

WORD PROCESSORS

● 1ST WORD PLUS
Electric Distribution
0480 496789
£79.95

Enhanced version of *1st Word*, the word processor bundle with the ST, this version is much meatier, can handle *Degas* graphics and comes complete with spell checker, mail merge and multi-column printing

▲ Fast and efficient
▲ Good display

▼ No short cuts to tedious keyboard sequences

● WORD WRITER
Electric Distribution
0480 496789
£79.95

Excellent text handling on a fast WYSIWYG word processor with built-in spell checker, thesaurus, outliner and mail merger. Only problem is with layouts - more than one in a document and things get a little hairy!

▲ Lots of great features
▲ Useful outliner included

▼ Layouts restricted

● PROTEXT
Arnor
0733 68909
£99.95
Easily the fast ST word processor – not surprising since it dispenses entirely with GEM – and stands out as fast keyboard driven text processor. Full of features it zips along at an unsurpassed rate

▲ Powerful macros, spell checker and mail merge
▲ Calculator, word count, memory editor

▼ Command driven
▼ No menus
▼ Restricted WYSIWYG

● THAT'S WRITE!
Cavendish
01-323 4761
£129

Another powerful non-GEM word processor featuring excellent layout control along with a font designer and screen grabber. Also includes useful functions such as auto indexing, contents generation and hyphen control

▲ Brilliant print-out results
▲ Powerful macro system

▼ No spell check or mail merge

● WORDUP
HB Marketing
0895 444433
£ 59.95

Almost qualifies as a DTP package as it includes graphic import, auto text flow around graphics and loads of different type sizes and styles. Excellent for producing stylish documents

▲ Good control over layout
▲ Quasi-DTP capabilities

▼ No spell checker

▼ Can only print its own fonts

SPREADSHEETS

● K-SPREAD 3
Kuma
07357 4335
£24.95

Good entry level spreadsheet which is fully compatible with other programs in the 'K' suite. A powerful Lotus-look-alike using GEM to provide a workspace of 256 columns by 8,192 rows. Many features such as text handling, arithmetic functions make it an excellent all-round business program

▲ Comprehensive low-cost package
▲ Lotus style capability
▲ Good manual

● DIGICALC
Digita International
0395 45059
£39.95

An easy to use spreadsheet which dispenses with GEM to provide a keystroke driven workspace full of popular facilities. 512 columns by 52 rows are supported plus the usual range of numeric functions

▲ Fast recalculation
▲ Holds full sheet entirely in memory
▲ User defined macros available

▼ No graphics
▼ No GEM
▼ No comparison functions

● VIP PROFESSIONAL
VIP Technologies
£149.95

A GEM version of VIP on the PC, supporting 8,192 x 256 cells and following the Lotus *1-2-3* industry standard. Fast editing and simple database functions complement a full range of features including keyboard macros

▲ Lotus controls
▲ Acts a simple database
▲ Graphic output

▼ Slow on large spreads

ACCOUNTING

● FINANCIAL CONTROLLER
Sagesoft
091-284 7077
£343.95

Comprehensive accounting package that includes all the features you're ever likely to want. Integrated sales, purchase and nominal ledgers, stock control and printed reports are supported as is auto invoicing.

▲ Fully comprehensive, powerful package
▲ Good manual

▼ Needs a hard disk

➤

DATAPLEX
129 Bath Road, Slough
Berkshire, SL1 3UW
Tel: 0753 35557
Showroom open:
Monday - Friday 9.30 - 5.30
Saturday 9.30 - 4.30
All prices excluding VAT and delivery

AMIGA HARDWARE
Amiga 500 + TV modulator £299
Amiga 500 + Batman Pack & 5 games, joystick £345.00

NEW BATMAN PACK £299 while stocks last!

New from Amiga
Includes: TV modulator, 3.5" Disk Drive with Amiga DOS Kickstart, Workbench and Batman The Movie game, F18 Inceptor, Paint 2, New Zealand Story.

AMIGA ACCESSORIES

Amiga Class of the 90's	£429

Inc. database, spreadsheet, WP, music, art & design, logo and BBC emulator.

Amiga A501 RAM pack + Clock	£99
Amiga joystick	£10
TV Modulator	£15
Phillips CM8833 colour monitor (inc. cable)	£219
Phillips BM7502 12" green monitor	£79
Phillips BM7522 12" amber monitor	£89
Amiga To Philips cable	£8

AMIGA DRIVE

1 Meg 3.5" external	£68
1 Meg 3.5" internal	£63
1 Meg 5.25" external	£99

ATARI DRIVES

1 Meg 3.5 external	£68
1 Meg 5.25 external	£99
1 Meg 3.5 internal	£63

AMSTRAD COMPUTERS

Amstrad PCW 8256	£319
Amstrad PCW 8512	£399
Amstrad PCW 9512	£419
Amstrad PC 1640 Single Mono	£449
Amstrad PC 1640 Single Col	£538
Amstrad PC 1640 Single ECD	£625
Amstrad PC 1640 dual mono	£515
Amstrad PC 1640 dual col	£599
Amstrad PC 1640 dual ECD	£689

Amstrad PC 1512, Amstrad hard disk version also available - Please ring for prices

STAR PRINTERS

Star LC10 mono	£135
Star LC10 II mono	£159
Star LC10 colour	£168
Star 2410	£225
Star LC15 9 Pin 136 column	£264
Star LC2415 24 Pin	£328

PANASONIC
Unbeatable Prices!

Panasonic 1081	£125
KXP 1124	£219
KXP 1180	£144

CITIZEN PRINTERS

Citizen 120D	£125
Citizen 180E	£127
Swift 24	£255
Colour upgrade for Swift	£42

MANNESMAN TALLY

Mannesman MT 81 Dot Matrix	£115
Mannesman Sheetfeeder	£62
Mannesman Serial Interface	£49

REPAIRS FOR AMIGA AND ATARI

● ACCOUNTANT

Sagesoft
091-284 7077
£171.35

Fast,powerful accounts package that includes integrated sales, purchase and nominal ledgers. No stock control but auto invoicing is supported along with form printing and sales analysis

- ▲ **Good features for the price**
- ▲ **Flexible with many features**

DATABASES

● SUPERBASE PROFESSIONAL

Precision
01-330 7166
£249.99

The ultimate ST relational database management package. Features videotape recorder style push-button controls to navigate a complex yet easy to use extravaganza which includes text processor, form editor and a built-in programming language boasting over 200 command words

- ▲ **Easy to use and extremely powerful**
- ▲ **Infinite field size and number of records**

● DATA MANAGER PROFESSIONAL

Timeworks
0954 80318
£ 69.95

A full-featured professional-grade data management tool which can be used with GEM's pull-down menus or directly from the keyboard. Relational operators allow powerful data searches among its maximum file length of 32,000 records and as this is RAM-based, *DMP* can sort at 100 records a second.

- ▲ **Exceptionally easy to use**
- ▲ **Impressive report facilities**

- ▼ **Manual needs a better index**

DESKTOP PUBLISHING

● TIMEWORKS DTP

GST/Timeworks
0954 81991
£129

One of the first medium priced DTP packages, GEM based and compatible with the wide range of Bitstream Fontware. A frame based system incorporating master templates, paragraph styles, page guides and automatic text wrap-around graphics. *Timeworks* also includes a a good range of drawing facilities and is able to handle documents up to 999 pages.

- ▲ **Excellent DTP at budget price**
- ▲ **Imports wide range of text and pictures**

● FLEET STREET EDITOR

Mirrorsoft
01-928 1454
£184

A GEM style package, Bitstream font compatible, but generally slower to use than real GEM DTPs. Both text and Graphics can be manipulated on the same screen and overlap each other. A wide selection of clip art is supplied but the working document has to be reloaded before insertion.

- ▲ **Good clip art selection**
- ▲ **Wide file format supported**

- ▼ **No automatic reflowing of text**
- ▼ **Relatively slow and unfriendly**

● PUBLISHING PARTNER

Clik ST
0753 682 988
£ 159.99

Excellent GEM -based page make-up system, with multiple-on screen pages, impressive range of fonts and text sizes and facility to import different ST graphics formats. Also includes a range of drawing tools and variable magnification. Fast screen updates and high quality printer output

- ▲ **Comprehensive and fast**
- ▲ **Excellent value**

● SIGNUM 2

Signa
0252 874406
£184

Billed as a document processor, Signum allows text to be placed and adjusted to accuracies of up to 1/90th of an inch as well as imported graphics and technical fonts and symbols. Dot-matrix and laser printers are supported.

- ▲ **Fast screen updates and response**
- ▲ **Compatible with Signa's scanners, digitisers and Mac emulators**

- ▼ **Price**

GRAPHICS

● CYBER PAINT

Electric Distribution
0480 496666
£69.95

Breathtaking bitmapped animation and graphics package from American Antic. This program features some incredible effects including tweening (changing one object to another a line at a time) and very powerful animation functions. Rivals the Amiga and is highly recommended.

- ▲ **Very powerful animation**
- ▲ **Stunning effects**
- ▲ **Cheap**

● DEGAS ELITE

Electronic Arts
0753 46546
£24.95

Like *Digipaint* for the Amiga, *Degas Elite* was one of the first painting programs for the Atari and it's still one of the best. You can have eight word screens at once, cut and paste between any of them and there are plenty of powerful functions such as zoom, block handling.

- ▲ **8 screens available**
- ▲ **Powerful block handling**

- ▼ **Lacking in features**

➤

★STAR PREFERRED CORPORATE SPECIALIST NATIONAL DEALER★

FREE HYPERDRAW/

HYPERPAINT/ FIRST WP

WITH EVERY ST & FREE

£50.00 SOFTWARE VOUCHER

FREE Pocket Calculator with every AMIGA

AMIGA

A500 BAT-PACK

INCLUDES:

- Batman The Movie
- New Zealand Story
- F18 Interceptor
- "D" Paint II
- Workbench 1.3
- Kickstart 1.3
- Amiga Basic
- Desktop Utilities
- New Tutorial Pack
- TV Modulator

£357.00

WITH TENSTAR PACK
£387.00

IBM/ST PROTEXT WORDPROCESSOR RRP £99.95 OUR SPECIAL **£39.95**

CLASS of the 90's

FREE F18 INTERCEPTOR worth £24.95

EDUCATION PACK

PACK BREAKDOWN

HARDWARE	£ INC VAT
Amiga A500 Computer	399.99
Midi Master Interface	34.99
TV Modulator	24.99

SOFTWARE	
Tutorial Pack	
Deluxe Paint II	49.95
Publishers Choice	99.95
Maxiplan 500	99.95
Superbase Personal	59.95
Dr. T's Recording Studio	49.95
Workbench 1.3	
Kickstart 1.3	
Desktop Utilities	14.99
BBC Software Emulator	49.95
Amiga Basic Language	
Amiga Logo Language	82.00

ACCESSORIES	
Mouse Mat	4.39
10 Blank 3.5" Diskettes	9.99
Disk Wallet	12.95
1 yr. Sub to Amiga User	23.00
Education support file (after 1 yr sub to Amiga User)	

TOTAL RRP = 1016.99
PACK DISCOUNT = 437.00

PROMOTION PRICE = 579.99

OUR PRICE = £509.00

BUSINESS, SCIENTIFIC, EDUCATION AND VIDEO GRAPHIC SOFTWARE

ST PC Speed (IBM PC Emulator)	£255.00
ST Mega Co-processor	£125.00
ST Macintosh Emulator (Runs 20% faster than a Mac Computer)	£229.00
Amiga Macintosh Emulator	£229.00
Cameron A4 Scanner (AM/ST)	£459.00
Amiga Flicker Master	£12.00
Amiga DOS to DOS (MS DOS File Converter)	£39.95
LC10 Mono ribbons	£3.50
LC10 Colour ribbons	£6.00
LC24-10 Mono ribbons	£4.50
FR/XB Mono ribbons	£12.00
Atari 1029 Mono ribbons	£4.95
100 x 3.5" disc box	£7.95
10 x 3.5" DS/DD discs	£7.35
60 gsm x 2000 sheet paper	£16.95
85 gsm x 1000 sheet paper	£12.95

520 STE EXPLORER PACK £278.00

520 STE POWER PACK PLUS £357.00

1040 STE HYPER PACK £435.00

MEGA 1 ST HYPER PACK £489.00

STAR

STAR RECOMMENDED CORPORATE DEALER

HOME AND BUSINESS SERIES	£ INC VAT
LC-10 9 PIN MONO	£159.00
COMMENT: EXCELLENT NEAR LETTER QUALITY EVEN IN ITALICS MODE	
LC-10 II MONO	£179.00
COMMENT: 25% FASTER, VERY ACCURATE LINEFEED FOR GRAPHICS	
LC-10 COLOUR	£197.00
COMMENT: LC-10 SPECS., COLOUR FEATURES NOW WELL SUPPORTED	
LC-15 9 PIN MONO	£306.00
COMMENT: IDEAL FOR LONG PRINT RUNS AND LABEL PRINTING	
LC24-10 24 PIN LQ	£239.00
COMMENT: LETTER QUALITY. EXTENSIVE FONT RANGE INCLUDING SCRIPT	
LC24-15 24 PIN LQ	£383.00

PORTFOLIO PORTABLE PC £235

Approved by HEWLETT PACKARD LASERJET SERIES II (and compatibles) **SUPER CARTRIDGES**

PostScript

PostScript Emulation Cartridge 35 Font Families Requires only 2 Mbytes of memory ONLY £545.00 plus VAT

25 cartridges in 1

Fonts from 25 different Cartridges in one 172 Fonts and 20 complete Symbol Sets Supports Portrait and Landscape printing ONLY £359.00 plus VAT

HPGL Plotter CART

Full HPGL Plotter Emulation 20 Black pens in user defined sizes of 0.003" to 0.16" Compatible with ALL major CAD / CAM software packages Plotting speed upto a 100 times faster ONLY £305.00 PLUS VAT

ATARI 8 BIT XF 551 DISK DRIVE £165.00

Very Very Limited Stock

FREE!! Utilities and tools pack with every ST purchase. Software Blitter, ST Diagnostics, Disk Editor/Custom Formatter, Disk Boot Construction Set, Alarm Clock, Quick Formatter, Calculator, Custom Format Disk Duplicator, Printer Customiser Tool, Desktop Games, ARC Construction Set, System Selector, 50/60 HZ Switcher and Synchronizer, Snapshot Dumper, RAM/Print Spooler, Word-processor **AND MUCH MUCH MORE!!**

AMIGA ADDITIONS

A500 3 1/2" 1 Meg Drive
£75.00

1/2 Meg A500 RAM Upgrade
with switch & clock....**£84.00**
without clock.........**£69.95**

All prices include VAT

COMPUTERHOUSE UK

TEL: (01) - 731 - 1276
14, ROMILY COURT, LANDRIDGE ROAD, FULHAM, LONDON SW6 4LL

Access Access MasterCard VISA

THE AFFORDABLE SOLUTIONS

Amstrad PPC 640S with Integral modem
+
20MB Internal Hard Disk

Amstrad is the trademark of Amstrad Plc.

HARD DISK FEATURES
- Totally Internal
- Fast access time
- Lightweight
- Rugged
- Autopark
- Very quiet

ONLY £948

(ex. VAT)
Price includes delivery UK Mainland

Internal hard disk Upgrade for PPC 512/640. 20MB £449.00 - Excluding VAT 40MB £599.00 - Excluding VAT.

NEW

EXPANSION BOX FOR PPC (SLOT BOX)
FEATURES:
*FOUR FULL SIZE SLOTS
*ADDITIONAL SPACE FOR:
2 X 5 1/4"devices
2 X 3 1/2"devices

A stand alone unit incorporating a unique temperature-controlled cooling fan. Unit also powers PPC. Output : 75W

ONLY £199
Exc. VAT

For Further Information
RING: 01-547-3701
Fax: 01-547-3702

ALFA
ELECTRONICS LTD
Alfa House
28 The Bittoms
Kingston Upon Thames
Surrey KTI 2AP

OR
Contact your local Amstrad Business Dealer

COMMODORE AMIGA A500

BATMAN MOVIE PACK	NEW!! MONSTER PACK
Amiga A500, Workbench 1.3, Mouse, Extras Disk, Tutorial Disk, Owners Handbook, Basic Handbook, Mouse Mat, TV Modulator, Deluxe Paint 2, F18 Interceptor, New Zealand Story, Batman.	Amiga A500, Workbench 1.3, Mouse, Extras Disk, Tutorial Disk, Owners Handbook, Basic Handbook, Mouse Mat, TV Modulator, Paint Package, F18 Interceptor, New Zealand Story, Batman, Word Processor, Music Package, Tile Game, Commodore Sports Bag, Ten Blank Disks, Disk Box Holds 80 Disks, Vinyl Dust Cover, Microswitch, Joystick
ONLY £369.95	ONLY £399.95

ALL AMIGA PRICES INCLUDE VAT, FITTED PLUG AND DELIVERY

ATARI 520ST

EXPLORER PACK	POWER PACK A	POWER PACK B
Atari 520ST, Mouse, Owners Handbook, Metacomo Basic Rev D, Sourcebook + Tutorial,	Atari 520ST, Mouse, Owners Handbook, First Basic, First Music, Business Organiser Software, 20 Great Games, Atari CX40 Joystick	Atari 520ST, Mouse, Owners Handbook, First Basic, First Music, Business Organiser Software, 20 Great Games, Atari CX40 Joystick, Vinyl Dust Cover, Twin Joystick Extend Lead, Disk Box for 80 Disks,Ten Blank DS/DD Disks, Second Joystick
ONLY £279.95	ONLY £359.95	ONLY £389.95

INCLUDING VAT AND DELIVERY

Plus FREE!! with any of the above Atari Packs a Superb Software Starter Pack comprising: WordProcessor, Spreadsheet, Spellchecker, Word Count Program, Neochrome, Mono Monitor Emulator, Database, Towers of Hanoi Game, Virus Killer, Sensori Game, Fruit Machine Game.

PLUS FREE with all Atari computers, Hyper Paint, Hyper Draw, Borodino RRP £79.00. Only whilst stocks last.

PERIPHERALS

STAR LC10 COLOUR PRINTER	STAR LC10 PRINTER	CUMANA CAX 354 AMIGA DISK DRIVE	PHILIPS CM8833 COLOUR MONITOR	CITIZEN 120D PRINTER	CUMANA CSA354 ST DISK DRIVE
£209.95	£169.95	£89.95	£249.95	£138.00	£92.95

ALL PERIPHERAL PRICES INCLUDE VAT, DELIVERY AND ANY LEADS NECESSARY TO CONNECT TO YOUR COMPUTER (PLEASE STATE)

SPECIAL OFFERS - WHILST STOCKS LAST

Commodore A501 RAM Expansion	£99.95	Deluxe Paint 2 Amiga	£19.95
Hyper Draw Atari ST	£9.95	Hyper Paint Atari ST	£9.95

The Works Platinum Edition Amiga RRP £!49.95 only £99.95

MAIL-CENTA
17, Campbell Street, Belper, Derby. DE5 1AP. Tel: 0773 826830
All prices include VAT and Delivery. However for orders under £10.00 please add a 50p handling charge. Personal callers welcome at our retail shop but please bring this advert as prices may vary. Closed Wednesdays.
All items despatched same day whenever possible.
Cheques may require a seven day clearance period. Prop. Martin Bridges

VISA

● SPECTRUM 512

Electric Distribution
0480 496666
£79.95

Painting package featuring (as its name suggests) 512 colours. The program is simple to use and effective. There's some very powerful functions too in the form of anti aliasing and gradient fill.

▲ Lots of colours
▲ Easy to use

▼ A little expensive

● ADVANCED ART STUDIO

Rainbird
0606 504326
£22.95

Aimed at those with a serious interest in producing quality art/graphics displays. the Advanced Art Studio. An enormous range of fills as well as comprehensive zoom and text handling complete this package.

▲ Lots of fills
▲ Powerful manipulation tools

MUSIC

● CREATOR

C-Lab (Sound Technology)
0462 480000
£285

Rapidly becoming the most widely used of sequencers it has excellent editing and arranging features. Although not cheap, if you are serious about music then this is the one to go for. It can be expanded with hardware to control up to 64 instruments independently

▲ Excellent facilities
▲ MIDI file compatibility
▲ Will also adapt to video sync
▲ Good editing

▼ Handbook can be hard to get to grips with
▼ Expensive if you are not serious

● TRACK 24

Comus/Soundbits
021-733 2063
£75

Well priced budget sequencer with more features than you would expect, rivaling software twice its price. Compatible with their more up-market sequencers and scoring packages.

▲ Cheap
▲ Good sequencing facilities including mixdown
▲ MIDI File

▼ Editing is peculiar

● STEINBERG PRO 24

Evenlode
099389 8484
£285

The has been the industry standard for many upon many years. The soon-to-be-available Amiga version should prove as interesting as the versions previously released on other machine specs. They are pushing their new program 'Cubase' at present, but one should not neglect this easy to use and very popular program. Make sure you get at least version 3 though.

▲ Easy to use
▲ Established program
▲ Easy editing

▼ Price

● VIRTUOSO

The Digital Muse/Audio Software
01-586 3445
£225

A new all British program having its first outing this year. Initial reactions are favourable and it has many things in its favour. It has all the features that are available on much more expensive packages and still remains quite easy and friendly to use.

▲ Very fast – thanks to re-writing of screen management
▲ Very accurate
▲ Can perform disk operations while still running
▲ Many excellent features

▼ New and therefore untested in the general market
▼ Price

● SUPER CONDUCTOR

Microdeal
0726 68020
£49.95

Very popular little sequencer that will also control the ST sound chip. Well thought out, especially in the song arrange section. Can also cope with the fine details of MIDI including systems exclusive editing.

▲ Suitable for beginner
▲ Easy arrange section
▲ Well documented
▲ Controls internal sound chip
▲ Good if you want to control MIDI via data

▼ Editing not too easy
▼ Quantize limited

● EZ TRACK PLUS

Syndromic Music
01-444 9126
£49.95

Reasonable sequencer that is fairly easy to use. Compatible with other Hybrid Arts programs that also boast a multi program environment. Limited on quantizing but not bad for the money. Editing in data only but good for organising songs.

▲ Good price
▲ Easy to use

▲ Compatible with Hybrid Arts EZ Score
▼ Limited on editing and quantizing

● REPLAY 4

Microdeal
0726 68020
£59.95

One of the first sampling packages now in its fourth version. Earlier versions available on public domain as sample players only. MIDI well looked after.

▲ Editing very easy
▲ Samples sound very clean
▲ Tried and tested program

▼ The ST is not the best sample player.

➤

CASPELL COMPUTER of POOLE

PAPER

Best quality wood-free - LOW DUST spec.

Type & Weight	Box	£/box
11/9.5 60gsm Fanfold Listing	2000	£13.95
11/9.5 70gsm Microperforated	2000	£15.95
11/9.5 85gsm Letter Quality	1000	£10.95
A4 Size 70gsm Microperforated	2000	£19.95
A4 Size 85gsm Letter Quality	1000	£11.95
11/9.5 NCR 2-part Plain	1000	£21.95
11/9.5 NCR 3-part Plain	700	£24.95
11/9.5 NCR 4-part Plain	500	£24.95
A5 Size 80gsm Letter Quality	1000	£11.95

ALL PRICES INCLUDE VAT
Delivery - see below

RIBBON REFRESH

Our own invention - Carbon in a Can!

Simply lift off ribbon casing & apply fresh carbon to your ribbon - double its life in seconds!

One can does 20-100 ribbons still just **£8.95**

NOW OVER 12000 SOLD!

DISKS

25 x 5.25" Branded Quality	£13.95
50 x 5.25" Branded Quality	£24.95
25 x 3.5" 135tpi Branded	£24.95
50 x 3.5" 135tpi Branded	£47.95

LABELS

Address Labels 3.5" x 1.5" 1 or 2-across
£3.75 per 1000 + Carriage

FREE CATALOGUE

1500 BOOKS! LIST 50p

RIBBONS

PRINTER	CODE No.	£
Amstrad		
PCW8256 Fabric Longlife	2741	C
PCW8256 Colours	2741C	C
PCW8256 Multistrike Films	2741MS	B
PCW 9512 Fabric Longlife	2746	C
PCW9512 Colours	2746C	C
PCW9512 Multistrike Films	2746MS	B
DMP2000/2160/3000/3160	2482	A
DMP 4000	2426	D
LQ3500	2741LL	C
Other		
Brother HP15/25/40	2696MS	B
Brother M1009/1109/1209	2412	C
Commodore MPS-803	2412	C
Canon PW1080A	2223	C
Citizen 120D/180E/LSP-10	2488	B
Citizen MSP-20/40/50	2477	C
Citizen HQP-45	2478	E
Epson FX/MX/RX-80	2273	B
Epson LX/GX-80	2454	B
Epson LQ-500	2477	C
Epson EX-800	2774	C
Juki 6100 Daisywheel	2563MS	B
NEC Pinwriter P1/P2	2254	C
NEC Pinwriter P6+/P7+	2870	D
NEC P2200	2844	C
Panasonic KX-P1081	2228	C
Panasonic KX-P1180	2904	C
Seikosha GP100	2317	B
Seikosha SL80	2741	C
Seikosha 500/550	2236	C
Shinwa CP-80	2698MS	C
Star LC-10	2861	B
Star LC-10 Colours	2869	E
Star LC24-10	2868	B
Star NL-10	2761	C

RIBBON PRICES inc VAT & post

	1-off	2-off	5-off
Price Band A	£2.95	£5.75	£12.95
Price Band B	£3.95	£7.45	£16.95
Price Band C	£4.95	£8.95	£19.95
Price Band D	£5.95	£10.95	£22.95
Price Band E	£7.95	£14.95	£34.95

HOW TO ORDER

DELIVERY	PAPER (any quantity)	LABELS (any quantity)	EVERYTHING ELSE
UK Mainland:	3/5-day: £5.00 24-hour: £10.00	3/5-day: £2.50 24-hour: £10.00	3/5-day: FREE 24-hour: £10.00

Overseas: Postage at cost. Callers (of course!) FREE

Order by FREEPOST - Cheque/PO/Visa/Access
Caspell Computer, Dept NCE, FREEPOST, Poole, Dorset BH15 2BR

Order by PHONE - VISA/ACCESS WELCOME!
☎ (0202) 666155 (24hr)

✓ We Welcome EXPRESS VOUCHERS

CALLERS WELCOME at our Sales Centre -
Unit 2A, Sterte Ind Est, Sterte Rd, Poole
next to the hump-back bridge!

FIRST CHOICE COMPUTERS

TEL: LEEDS (0532) 637988

UNIT 8, ARMLEY PARK COURT, STANNINGLEY ROAD, LEEDS LS12 2AE

ALL PRICES INCLUDE VAT & DELIVERY. Add £1.00 P&P for order under £20.00

STAR LC10 MONO
9 Pin Printer Inc Lead
£159.00

AMIGA BATPACK
Inc. Modulator, Mouse, Batman, F18, New Zealand Story, DPaint II and mouse
£369.00

ATARI STE POWERPACK
inc 20 games, Music Maker, Organiser, First Basic and Joystick.
£359.00

LOW PRICE
CLASS OF THE 90'S
Inc Amiga A500, mouse, word processor, database, spreadsheet and much more.
ONLY £519.99

All our Products are UK specification

PRINTERS (inc lead)

Star LC10 Col	£209.00
Star LC2410	£259.00
Citizen Swift 24 pin	£309.99
Colour option for Swift	£34.99
NEC pin writer P2+	£299.00

MONITORS (inc lead)

Comm 1084P	£224.99
Acorn/Philips CM8832	£229.99
Philips 8833	£249.00
Atari SM124	£109.00

DISC DRIVES

Cumana ST 3.5	£89.99
Cumana Amiga 3.5	£84.99
Power Drive ST 3.5	£84.99
Power Drive Amiga 3.5	£76.99

OTHER COMPUTERS

COMMODORE AMIGA
with Out games pack Inc mouse manuals
£349.00

AMIGA BATPACK
As above + 10 Star Pack
£389.00

ATARI 1040 STE HYPER PACK
inc Hyperpaint, Hyperdraw, Borodino Metacomco Basic
£429.00

ATARI MEGA 2+ SM124
£885.00

ATARI 520 STE HYPERPACK
inc Hyperpaint, Hyperdraw, Borodino, Metacomco Basic
£279.00

BULK 3.5" 135 TPI

NEW PRICES!

LIFETIME GUARANTEE

SONY BULK		
10	For	£6.99
50	For	£31.99
100	For	£59.99
300	For	£158.99
500	For	£254.99

MITSUBISHI BULK		
10	For	£5.99
50	For	£27.99
100	For	£48.99
300	For	£139.99
500	For	£224.99
1000	For	£435.99

ACCESSORIES

Dust Covers from	£4.99
80 Capacity 3.5" Lockable Disk Box	£6.99
40 Capacity Lockable Disk Box	£5.49
Mouse Pads	£4.99
Printer Leads	£5.99
Scart Leads	£9.99
Atari Mouse	£24.99
Naksha Mouse (Amiga, ST, PC)	£39.99
100 Capacity Lockable 3.5" Disk Box	£7.99

SOFTWARE

First Word Plus (ST)	£59.99
Hyper Draw (ST)	£14.99
Hyper Paint (ST)	£14.99
Mavis Beacon Typing	£24.99
Kindword V2 (ST/AM)	£39.99
Protext (ST/AM)	£74.99
GFA Basic (ST/AM)	£39.99
Publishers Choice	£74.99

For the Best Prices, Best Advice and Best Service, your only choice is FIRST CHOICE.
OPEN 9.00AM TO 5.30PM MONDAY TO
SATURDAY OPEN SUNDAYS 10.00AM TO 3.00PM
OPEN THURSDAY 'TILL 8PM
Call into our showroom or order by telephone for
a fast delivery Tel: 0532 637988 Fax: 0532 637 689
please make cheques payable to First Choice

VISA

Access

TOP DOG
THE PROGRAM THE BOOKIES WANT TO BAN!!

Did you know that Greyhound racing accounts for the largest amounts of bets after horse racing. Now there is a unique program available that will enable you to make LOADSAMONEY from betting on Greyhounds morning and evening six days a week every week of the year.

TOP DOG is a Greyhound racing analysis program that will enable ST owners to analyse any Greyhound race and dramatically increase the chances of selecting the winner. Up to 60% or more of TOP DOG selections have won with a return of 98% on level stake bet. TOP DOG uses information from the daily sporting press and data entry takes a few minutes - analyse one race or a complete meeting. TOP DOG's special archiving system allows you to recall any race for viewing or amendment as well as providing an assessment of how well the program is working for various race tracks or types of race.

AND THAT'S NOT ALL - JUST LOOK AT TOP DOG'S OTHER FEATURES

- RUNS ON ST520 & 1040'S AND MEGAS
- SS/DS FLOPPY/HARD DISK COMPATIBLE
- MONOCHROME OR COLOUR MONITOR/TV
- USES GEM FACILITIES
- FULL PRINTER SUPPORT
- COMPREHENSIVE MANUAL
- ON SCREEN INFORMATION
- UNIQUE ARCHIVING SYSTEM
- PROGRAM SELF ANALYSIS
- READY RECKONER FOR ALL POPULAR MULTIPLE BETS
- EASY DATA ENTRY
- ALL GREYHOUND TRACKS
- RESULTS FACILITY
- CLEAR CHOICE OF SELECTION
- ALL MAJOR ASPECTS FORM ANALYSED (TIMINGS, GOING, PAST FORM)
- INDIVIDUAL ASPECTS OF FORM CAN BE VIEWED
- BETTING LOG
- FORECAST & TRICASTS

FOR ONLY £49.95
YOU CAN MAKE TOP DOG MAKE MONEY FOR YOU

* * SPECIAL NEW YEAR OFFER * *
All Customers Registered on the Top Dog Hotline 0222 766905
Will receive £10 Discount.

TOP DOG AVAILABLE ONLY FROM FORECAST
SOFTWARE - SEND CHEQUE/PO TO:
FORECAST SOFTWARE, Dept NCE 2, 60 THORNHILL ROAD,
LLANISHEN, CARDIFF, S. GLAM. CF4 6PF
Trade enquiries welcome

AMAZING OFFERS
3½" DS/DD DISKS
100% Certified Error Free
36p +VAT
TDK UNBRANDED DISKS
Inc Labels
100 31/2 DISKS + 80 CAP BOX inc P&P £46.20
50 31/2 DISKS + 40 CAP BOX inc P&P £27.70
STAR LC10 RIBBONS Black = £3.50 Colour = £5.20
SAME DAY DESPATCH
40 Cap Box = £4.10
80 Cap Box = £4.60
3 1/2 DS/HD = £1.15
ADD £3.30 to all orders for postage. ADD £9 for next day delivery.
ALL PRICES INCLUDE VAT UNLESS STATED

AMIGAS
Batpack....£358
Batpack+ Tenstar....£375
Class of the 90's....£495
31/2 External Drive...£59
RAM Pack....£64

LOOK JOYSTICKS!!
Black Cruiser £7.50
Zipstick £10.80
Quickshot £4.50

ATARIS
Power Pack....£360
Ultimate Pack....£430
31/2 External drive with PSU....£68

☆ GAMES NOW AVAILABLE☆

CALL OR SEND CHEQUES TO B.C.S LTD,
349 DITCHLING ROAD, BRIGHTON BN1 6JJ
0273 506269 24 hours

● MUSIC STUDIO V3
Activision
0734 311666
£29.95

Has wave form editing, MIDI in and out and output. Versions differ in sound quality.

▲ **Comprehensive program**
▲ **Price**

▼ **Uses traditional notation to sequence**

GAMES

● CARRIER COMMAND
Rainbird
0666 504326
£24.99

Compelling strategic shoot-'em-up with you in charge of a 200mph aircraft carrier of the future attempting to taker control of a vast volcanic archipelago. Fly jets and drive amphibious vehicles simultaneously while colonising the territory and supplies of the enemy.

● STARGLIDER 2
Rainbird
0666 504326
£24.99

Solid 3D extravaganza which can be played either as shoot-'em-up or strategy with you looking for the parts to build a neutron bomb as you fly around an alien system encountering all manner of alien life. Features some of the best filled vector animation on any home micro.

● KICK OFF
Anco
0322 92513
£19.99

Excellent soccer-sim with furious, well-rad ball control putting it in a class of its own. Play against a friend or the computer in five levels of competence presented with opportunities to compete in The World Cup and practice the skills needed to beat all comers.

● DUNGEON MASTER
Mirrorsoft
01-928 1454
£24.99

Arguably the best graphic adventure to have appeared on any machine, *Dungeon Master* takes you into a catacombed world of adventure and peril. Fourteen levels of surprise and puzzles with only four companions to help you survive.

● XENON 2
Imageworks
01-928 1454
£24.99

Much hyped but nevertheless superb shoot-em-up with the accent firmly on attack. Six levels of mutant aliens just dying to get taken out with you at the controls of a modular spacecraft with almost enough weaponry to drown out the sound of the Bomb The Bass soundtrack

● FALCON
Mirrorsoft
01-928 1454
£19.99

Superior F-16 flight sim, now with an additional mission disk, featuring multi-viewpoint combat tasks with smooth graphics and superb control. Perhaps not a stickler for realism but immensely playable and nevertheless convincing

● VIRUS
Firebird
0666 504326
£19.99

First solid 3D game to really harness the power of the 68000 – smooth, fast scrolling shoot-'em-up with brilliant graphics in which you guide a hoverplane over a archipelago world being infested with pestilence by a variety of alien craft.

● BALANCE OF POWER
Mindscape
0444 86545
£24.99

Challenge your ST, or a friend, to global domination in the ultimate ST strategy game. A fascinating insight into geopolitics with you playing either the USA or USSR in a five year span of policy-making as you attempt to defeat your opponent without causing Armageddon.

● POPULOUS
Electronic Arts
0753 46465
£24.99
Unique microcosm of a variety of worlds in which you play God. You create the conditions for your minions to breed and colonise a staggering 999 worlds before your human or computer opponent does the same. Recently complemented by an additional disk of new worlds.

MISCELLANY

● AUTOROUTE
Nextbase
0784 460077
£149.50
Complete electronic map of Britain, with which you can plan the shortest,cheapest and quickest route between any two places. Besides a scalable on-screen map you can also get print-outs of projected journeys. An invaluable aid to travel -and general geographic browsing.

● GFA RAY TRACE 3D
GFA
0734 794941
£49.95
Impressive ray-tracing program that for the first combines both low and medium resolutions on the same screen. Complete with animation facilities the package takes solid 3D ST modelling to new heights at a speed which leaves the Amiga's blitter standing.

● PC DITTO
Avant Garde
01-866 7692
£79.95

Useful PC emulator that lets you run most CGA software albeit at a somewhat slower rate. Great if you have a PC at work and an ST at home – simply format a disk using *Ditto* and use your ST word processor to write to it.

Always *Reasonable* *Reliable* *And* *No Fuss*

COMPUTERS

NOW IN STOCK
MGT's SAM COUPE

Sam Coupe	£169.00
Sam Coupe + 1 Disk Drive	£249.00
Sam Coupe + 2 Disk Drive	£329.00
256K Add-on Memory	£39.00
Sam to Scart Cable	£9.95
Technical Manual	£8.95

AMIGA A500 BATMAN PACK
Includes Batman The Movie, New Zealand Story, F18 Interceptor, Deluxe Paint II, TV Modulator
RRP £399.00
OFFER PRICE £375.00

BATPACK + 10 STAR PACK
£395.00

BATPACK + A501 RAM UPGRADE
£459.00

A500 CLASS OF THE 90's PACK
Complete Educational Package
Extensive software,
too much to list
Total Value - £1002.00
RRP £573.00
Our Price £516.00 inc VAT

AS ABOVE + A501 RAM UPGRADE
£595.00

ATARI

ATARI 520 STE POWER PACK
Includes 20 games, music software, business organizer, Hi-Soft basic Hyperpack
RRP £399.00
OFFER PRICE.................£360.00

ATARI 520 STE EXPLORER PACK inc. HYPERPACK
RRP £299.00
OFFER PRICE.................£275.00

1040 STE + HYPERPACK
RRP £499.00
OFFER PRICE.................£449.00

MEGA 1 ST + MONO MONITOR
OFFER PRICE £599.00

MEGA 2 ST + MONO MONITOR
OFFER PRICE £899.00

AMSTRAD PCW
PCW 9512
+ Daisywheel printer
RRP £573.00
OFFER PRICE.................£516.00

VISA Access

MONITORS

PHILIPS CM8833
Colour Med-res
RRP £299.00
OFFER PRICE...................£235.00
Lead ST/Amiga £9.95
Please state which

DISK DRIVES

AMIGA
1Meg 3.5" Slimline
daisychainable, disable switch
OFFER PRICE.....................£74.95

ATARI ST
1 Meg 3.5" Slimline
Joystick Powered
OFFER PRICE.....................£69.95
OFFER PRICE with PSU £79.95

UPGRADES

A501
1/2 Meg upgrade with clock card
RRP £149.99
OFFER PRICE...................£110.00
1/2 Meg with clock £75.00

PRINTERS

CITIZEN SWIFT 24 PIN DMP
Draft 192, LQ60, Friction/tractor feed
RRP £441.00
OFFER PRICE...................£299.00
Price includes Amiga ST/PC lead,
2 year warranty

CITIZEN 180E 9 PIN DMP
Draft 150 NLQ 36
£165.00
Including Amiga/ST/PC lead
2 year warranty

STAR LC10 9 PIN DMP
Including Lead
£169.00

STAR LC10 COLOUR PRINTER
Including Lead
£210.00

- **Credit card 24 hour facility**
- **Credit cards not debited until goods despatched**
- **Offered subject to availability and price change**
- **Same day despatch on stock items**
- **Amstrad authorized business dealer**
- **Ring for price lists**
- **Large selection of games on most formats**
- **Large selection of business software IBM/PC compatibles**

IBM/PC COMPATIBLE

Amstrad Advanced System Centre
AMSTRAD PC
PC 1512

SD MONO	£442
DD MONO	£549
SD COLOUR	£569
DD COLOUR	£639

PC 2086
(Includes Lotus Symphony)

SD MONO	£649
DD MONO	£729
HD MONO	£935
SD COLOUR	£755
DD COLOUR	£835

12" HI-RES COLOUR
SD £859 - DD £935 - HD £1,145

14" HI-RES COLOUR
SD £959 - DD £1,039 - HD £1,249

PC 2286

PRICES INCLUDE 48 HOUR ON SITE MAINTENANCE

	OUR
DD Mono 12"	£1006
HD Mono 12"	£1196
DD Colour 14"	£1104
HD Colour 14"	£1288
DD Colour 12" Hi Res	£1196
HD Colour 12" Hi Res	£1378
DD Colour 14" Hi Res	£1288
HD Colour 14" Hi Res	£1493

PC 2386

HD Mono 12"	£1953
HD Colour 14"	£2041
HD Colour 12" Hi Res	£2121
HD Colour 14" Hi Res	£2242

AMSTRAD PORTABLES

PPC 512	**D**	**£429**
PPC 512	**DD**	**£549**
PPC 1640	**D**	**£549**
PPC 1640	**DD**	**£629**

COMMODORE

AUTHORISED BUSINESS DEALERS
INTRODUCING:
STARTER PACK WHICH INCLUDES:
★ Mavis Beacon Teaches Typing
★ The Secretary Bird Integrated Package
★ MS DOS Introduction Disk
★ Explanatory Video

PC10SD	**OUR**
Mono 12"	£585
Colour 14"	£745
Mono VGA 14"	£775
Colour VGA 14"	£875
PC10DD	
Mono 12"	£640
Colour 14"	£800
Mono VGA 14"	£826
Colour VGA 14"	£930
PC20HD	
Mono 12"	£826
Colour 14"	£980
Mono VGA 14"	£1033
Colour VGA 14"	£1135
PC30HD	
Mono	£1230
Colour EGA	£1445

All Commodore prices include 12 mths next day on-site maintenance

A R R A N

A R R A N

A R R A N

A R R A N

SEE US ON STAND F5 G.MEX MANCHESTER 15TH-18TH MARCH

WHY NOT CALL IN AND SEE US

Mail Order Send Cheques/PO to:
ARRAN COMPUTERS
17A LOWER HILLGATE, STOCKPORT
SK1 1JQ
TELEPHONE 061 480 3975/061 429 8817
Fax: 061 429 8257

PRICES INC. VAT
P&P FREE UK ONLY
OVERSEAS ADD £3.00
NEXT DAY COURIER ADD £5.00

SHOPPING EXPRESS READER ADS

There are great bargains to be had in our reader ads section, but remember to check before you buy – we cannot be held responsible for the quality of the goods on offer!

● FOR SALE

AKAI AV amplifier, links HIFI video, computers, built in B/W 4-inch monitor. originally £240. Swap for Spectrum +3 (128 or offers) Tel Martin (09356) 25974

C-64 and Atari software bargains, loadsa good titles, adventures, R-Play and arcade classics. Also disks for XL/XE. SAE to Dave, 8 Carfield Skelmersdale, Lancs WN8 9DL.

EINSTEIN 3 inch and 5.25 drives, Spectrum Emulator, printer, manuals, lots of software £120. Spectrum 48K, many extras, many games £80. Tel Blackpool 734679.

PACE Linnet intelligent modem V21/23 plus RS232 cable for Amiga. Excellent condition £100. Tel 0287 24167 after 6pm.

MICROBRUSH graphics package for Master 128 comprising three roms and five disks, original price £200 will sell for £130 phone (0244) 315890.

COMMODORE 64C, disk drive and tape recorder. Serious and fun software! I am upgrading to ST £200 ono. Phone James 0455 557734.

COMMODORE 64, 1541 disk drive, C2N cassette dec, business and games software. Boxed includes Easyscript (£50 word-processor) offers near £200 or Enterprise and cash. James (0455) 557734.

LOADSA ST games for sale all originals and boxed from £8. Titles include D Master, Operation Wolf, Hostages, Capt Blood, Carrier Command and Obliterator. Ring Dave 091-4835612. 5-8pm.

ST software for sale many top titles from only £8. All boxed originals in perfect condition. Ring Dave on091-4835612. Any day 5-8pm.

ST software for sale. Loadsa top titles from £8. Also Hisoft Cobol and Power Basic. Offers wanted for LC10 colour printer. Ring Dave091-4835612 from 5pm-8pm.

KINDWORDS Wordpro for Amiga £35 ono. Ring Gio on (0602) 605994 after 6pm.

ST games, Sleeping Gods, Hewson Premier vol 1. Shadowgate, Gauntlet II, Heroes of the Lance, Galdragons Domain, £5 each VGC. Ring Chris Bath (0225) 337403 evenings.

QL good condition, new membrane, boxed 16 spare microdrive cartridges. Tel: (0703) 253646 £75 ono.

8087 co-processor limited quantity 8087 (5MHz) £49 8087-2 (8MHz) £69. Tel (0442) 219803 evenings.

ATARI 520STFM in excellent condition with all leads and manuals etc. original packaging, complete with over £150 of recent games only £250. Phone (0634) 30687.

CBM 64, datasette, disk drive, printer, loads of tapes and blank discs. All boxed with manuals. Unbeatable low prices, only £250 the lot. Phone Tony (0373) 65752.

AMSTRAD CPC464 green screen monitor with TV modulator, manual magazines and software worth over £650. Sell for £250 ono. Tel Phil, Birmingham 021-378 4683 after 7pm weekdays.

ACORN Electron, plus 1 view viewsheet, extra 32K Ram, printer lead also books, manuals, mags and all leads £80 ono. Ring 01-398 5167 evenings.

AMIGA A500 expanded to 1 meg with 2nd drive including modulator, WB1-2, Arctic Fox, The Pawn, Virus, Starglider. £420. 01-232 2732.

AMSTRAD CPC464 with mono monitor, £300 of software, two joysticks, loads of mags, books. All in excellent condition £120. Telephone (0543) 78742 (Staffs) after 6pm.

PLEASE please will you buy my Atari 800XL for £50 (need quick sale to buy Amiga) also 3.5 disks £5 for 10 unused £1.50 P&P. Tel: (061) 796 0213 after 6pm.

AMSTRAD 6128 colour as new, loads of disk software, plus many extras, all in excellent condition. Must sell, bargain £315. Tel: Harlow (0279) 419146.

CBM 64, and Citizen 120D printer with 1000 sheets of paper, plus many games, both unwanted Christmas presents. Both still boxed £350. Tel (0909) 773250 after 6pm.

ATARI ST games for sale. Large list, SAE please to: Charles, 23 Nottingham Court, St Johns, Woking, Surrey GU21 1TH.

BBC 'B', s/w Ram, Speech, DFS, dual drives, datacorder, joystick, Rom socket, Epson printer, + £500 worth software (50-60 disks) +10 Ram images, mags and manuals. Offers? Tel Prash 01-686 2895.

BBCB+ plus Cumana dual drives, Cub monitor, Epson printer £550 o.n.o. Phone Steve or Allen on (0204) 395891.

CPC cassette games for sale due to upgrade, guaranteed orginals from 50p. SAE please to: G. Wade, 50 Colville Street, Fenton, Stoke on Trent, Staffs ST4 36B.

AMIGA, 1Mb (512K upgrade), two 3 1/4-inch drives, 'C' compiler, software, books, disks, guaranteed will split £650. Daytime (0234) 851851 ext 256, evening message (0908) 585093 Johnson.

AMIGA software. Test-Drive II £10, SDI £8, Pro-Tour Tennis £8, Extra-Time £5, California Challenge, The Supercars £5 each (requires Test Drive II). Telephone: Brentwood 216112.

AMSTRAD 464 with green monitor plus adaptor for RGB TV's. Also fifty games and joystick £150 o.n.o. Phone (0895) 57019 after 5pm weekdays 12pm weekends.

SINCLAIR QL with power supply, some software £55 o.n.o. Blackburn area (0254) 812131.

Dunning COMPUTER SERVICES

DEPT NCE, 32 Granville Road, Bournemouth,
Dorset 8HS 2AH

All prices include delivery
Just add VAT at 15%
Cheques/PO's with order or phone
our credit card hotline.
All orders despatched same day
whenever possible

VISA

(0202) 431762

we're busy cutting prices

RIBBONS GALORE!

We have ribbons for 1000's of printers - if yours is not listed, give us a call!

		1 off £	2 off £	5 off £
Amstrad DMP2000/3000	F	3.44	6.48	14.74
Amstrad DMP4000	F	4.70	8.93	21.15
Amstrad LQ5000	F	5.28	10.03	23.75
Brother HR15/EM200	F	3.57	6.78	16.06
Brother HR15/EM200	MS	4.03	7.66	18.13
C.Itoh Pro I/II	F	4.06	7.71	18.27
Canon 1156A	F	3.73	7.10	16.78
Centronics H80	F	3.73	7.10	16.78
Citizen 1200	F	3.44	6.48	14.74
Citizen Swift 24	F	4.95	9.40	22.27
Commodore MPS1230	F	3.43	6.52	15.44
Commodore MPS801	F	3.34	6.35	15.03
Epson MX/RX/FX100	F	4.30	7.78	17.35
Epson LX80/86	F	2.47	4.70	11.11
Epson FX/MX/RX 80	F	3.44	6.48	14.74
Epson LQ1000	F	4.38	8.32	19.71
Epson EX800/1000	F	5.17	9.52	19.96
Epson LQ2500/2550	F	4.73	8.99	21.28
Facit 4512	F	2.75	5.24	12.37
H.Packard D/Jet Cart		14.80	28.12	66.60
IBM 4208/Pro, 24XL	F	7.26	13.80	32.67
NEC P2200	F	5.20	9.88	23.40
OKI 390/391	F	4.60	8.74	20.70
OKI 393	F	9.50	18.05	42.75
Olivetti DM100	F	3.43	6.52	15.44
Olivetti 35/40/45	F	7.11	13.51	31.99
P'sonic KXP1080-1180	F	4.00	7.60	19.00
Star LC10	F	3.44	6.48	14.74
Star LC10 4 col	F	7.70	14.63	34.65
Star LC24-10	F	3.50	6.65	15.75
Star NX15	F	5.71	10.85	25.69
Star NL10	F	5.11	9.70	22.99
Star SD10	F	4.81	9.15	21.64
Star NC10	F	4.30	7.78	17.35
T.Adler SE310	F	3.69	7.02	16.60
T.Adler SE310	MS	4.56	8.67	20.52

.......and many many more
F = Fabric MS = Multistrike

DISKS

3" CF2	(Maxell)	per	5	9.99
		per	10	18.99
3.5"	DS135tpi	per	10	11.26
		per	25	23.43
5.25"	DS96tpi	per	10	5.61
		per	25	12.56

DISK STORAGE BOXES

Quality lockable boxes		£
3"/3.5"	30/40 cap	8.48
	60/80 cap	10.96
5.25"	50 cap	8.85
	100 cap	9.96

...... AND ALSO

		£
Dust Covers	from	4.78
Printer Stand		8.65
Copy Holder		9.90
Monitor Filters	from	11.85
Mouse Pad		4.30
Drive Cleaners	3"	3.43
	3.5"	2.90
	5.25"	2.56
Ribbon Refresh		7.78
Envelopes		P.O.A.

CONTINUOUS PAPER

Top quality wood free

	500 £	1000 £	2000 £
11 x 9.5			
60gsm	7 60	11.20	15 60
70gsm(M)	8.20	12.30	16 81
80gsm(M)	8.80	12.60	18 38
90gsm(M)	9.10	12.75	19 20
2 Part NCR	14.20	20.13	
11.66 x 9.25 (A4 Size)			
70gsm(M)	9.30	12.70	18 84
80gsm(M)	10.80	13.60	22 27
90gsm(M)	11.30	14 64	23 27
2 Part NCR	18.50	30 90	
11 x 14.5			
60gsm		14 36	20.13
70gsm		15.18	21.81

M = Microperfs

COMPUTER LABELS

Avery brand - the best!

1, 2 or 3 ACROSS (please specify)	1000 £	2000 £
2 3/4 x 15/16	4.05	6 96
2 3/4 x 1 7/16	4.93	8.48
3 1/2 x 15/16	4.33	7.39
3 1/2 x 1 7/16	5.37	9.52
3 1/2 x 1 15/16	7.79	12.96
4 x 15/16	5.09	7.78
4 x 1 7/16	6.09	9.96
4 x 1 15/16	7.80	13.09

Extra discounts for larger quantities
Blank disk labels also available

YOUR ONE STOP SHOP

MORE SOFTWARE THAN YOU CAN HANDLE!
MORE HARDWARE THAN YOU CAN USE!

Software SUPERSTORE

AMIGA 512K MEMORY EXPANSION

- Brings your Amiga up to 1 Meg in seconds.
- Enable/disable switch. Now you can run ALL software.
- Easy to fit - no technical knowledge needed.
- Reliable, fast, high quality chips on a robust through plated P.C.B. Do not confuse with cheaper, inferior products.
- DOES NOT INVALIDATE GUARANTEE.

ONLY £69.99

ONLY £79.99 FOR VERSION WITH CLOCK/CALENDAR

AMIGA 3.5" 2nd DRIVE

- DISABLE SWITCH
- THROUGH PORT
- SLIM SIZE
- LOW POWER CONSUMPTION
- HIGHLY RELIABLE
- EXCELLENT R/W PERFORMANCE

ONLY £79.99

ST 2nd DRIVES

ALSO AVAILABLE
PLEASE ASK FOR DETAILS

WE STOCK MOST DATEL PRODUCTS

SEGA

WE STOCK A VAST RANGE OF ALL THE VERY LATEST TITLES

Commodore AMIGA
BATMAN PACK
Paint II
10 STAR PACK

AMIGA A500 BATMAN PACK

ALMOST HALF PRICE

	R.R.P.
A500	£399.99
TV MODULATOR	24.99
BATMAN (THE MOVIE)	24.99
NEWZEALAND STORY	24.99
DELUXE PAINT II	49.99
INTERCEPTOR	29.99
TEN STAR PACK	229.50
TOTAL R.R.P.	£784.44
LESS DISCOUNT	£384.45
OUR PRICE	£399.99

*OR £15 MONTHLY

1 MEG AMIGA :-

as above plus half meg upgrade, mouse, mat, mouse holder, lockable disk storage case, dust cover and 10 disks

OUR PRICE

ONLY £499.99
*OR £19 MONTHLY

CALLERS ONLY

10 BLANK 3.5" DSDD DISKS NCE 1
CERTIFIED 100% ERROR FREE
IN A LOCKABLE STORAGE BOX
COMPLETE WITH LABELS (BOX HOLDS 40 DISKS)

ONLY £9.99

WHEN YOU BRING THIS VOUCHER TO ANY OF OUR STORES. BUT HURRY STOCKS ARE LIMITED SO ONLY ONE VOUCHER PER CUSTOMER SUBJECT TO AVAILABILITY.
VOUCHER VALID UNTIL 8/3/90

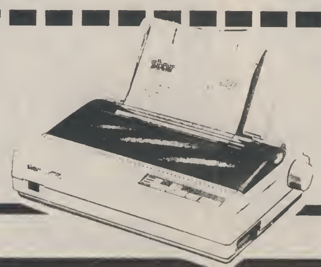
Access
VISA
Licensed Credit Broker

*(subject to status) Written details on request.

MAIL ORDER:- Carriage at Cost

ORDER HOTLINE (MON to FRI) (0782) 202269

ADVICE HOTLINE (0782) 268620 for FAST & FRIENDLY SERVICE



1 YEAR ON-SITE MAINTENANCE ONLY £10 EXTRA ON ANY PRINTER

PRINTERS

STAR LC10

Acclaimed "Best Buy" budget printer. Now massively under-priced at just

£169.99 *OR £8 MONTHLY

STAR LC10 Colour

The perfect printer for every Amiga. Colour output from all the better art packages - or just slot in a black ribbon for word processing. Cheap to run too. Very affordable

£229.99 *OR £9 MONTHLY

STAR LC24 - 10

24 Pin quality at a price you can afford. 8 Fonts, 3 print variations, paper parking, 170 CPS draft, 57 CPS LQ

£259.99 *OR £10 MONTHLY

FREE Cable with every Printer

STOKE-ON-TRENT
11 Market Square Arcade,
Hanley Stoke-on-Trent
Manager: Wayne Tel: 0782
268620 Open 6 Days

SHEFFIELD
6 Waingate, Sheffield
Manager: Tony
Tel: 0742 721906
Open 6 days

ST HELENS
27 Baldwin Street,
St Helens
Manager: Adrian
Tel: 0744 27941
Closed Thursday

STOCKPORT
6 Mealhouse Brow,
(Off Little Underbank),
Stockport. Manager: Ray
Tel: 061 480 2693
Closed Thursday

BEST PRICES!

"Well done" "Amazing prices" "Very quick delivery" - Mr T.N-S. Bucks

DESKTOP PUBLISHING WITH TIMEWORKS DTP

TIMEWORKS DESKTOP PUBLISHER PC is our biggest selling desktop publishing package for PC compatibles. Timeworks DTP is a full-featured desktop publishing tool that allows you to design, layout, produce and print top quality, professional looking newsletters, advertisements, reports, catalogues - virtually any printed document you can dream up! Timeworks DTP is supplied with Digital Research GEM/3 software and has a full WYSIWYG display. Full telephone support is available. New Version 1.2 now allows file import from Wordstar 5 and AutoCad adding to many existing packages which are compatible with Timeworks DTP such as Word Writer, First Word Plus, Wordstar, Word Perfect etc. The systems requirements for Timeworks DTP are : IBM PC, Amstrad PC or compatible with at least 512K ram and two floppy drives or a hard disk. A Mouse is recommended. Graphics displays supported are : CGA, EGA, Hercules, Wyse, Amstrad ECD and finally most VGA screens. Printer support is very comprehensive : Epson 9 and 24 pin printers and most Epson compatibles, IBM ProPrinter 9 pin, Xerox 4020 inkjet, Epson GQ3500 laser, HP LaserJet Plus & LaserJet 2 and PostScript printers and typesetters.

Timewroks DTP has just about every feature that a desktop publishing package should have - but it does not have the large price tag like most other packages.....

TIMEWORKS DESKTOP PUBLISHER PC	***£89.99***
Timeworks Tutor Pack	***£22.99***

Font Disks :-

ITC Avant Garde	***£22.99***
ITC Bookman	***£22.99***
Century Schoolbook	***£22.99***
Courier & Symbols	***£22.99***
Sans	***£22.99***
Sans Narrow	***£22.99***
Palermo	***£22.99***
Serif	***£22.99***
Zapf, Chancery & Dingbats	***£22.99***
Prime Collection Font Pack : Courier, Sans, Serfif & Symbols	***£42.99***
Standard Collection Font Pack : ITC Avant Garde, ITC Bookman, Century Schoolbook, Palermo, Sans Narrow, Zapf, Chancery & Dingbats	***£68.99***

Clip Art Library Disks :

Scan Art	***£29.99***
Draw Art	***£36.99***
Borders	***£22.99***

Please specify either 3.5" or 5.25" when ordering.

COMMODORE

The new Commodore PC Starter Pack is aimed at both the inexperienced and the experienced PC user. Containing everything the PC user needs and wants the Starter Pack includes, in a stunning eye catching box :

- **CPU and AT style keyboard**
- **MS Dos & Tutor**
- **Typing Tutor**
- **Integrated :- Wordprocessor**
  - **Database**
  - **Spreadsheet**
- **Monitor**
- **GW Basic**
- **A-Z of Computer Jargon**
- **Tutorial Video**
- **90 Day Software Hotline**
- **12 Months On Site Warranty**

The Commodore PC10 & PC20 Technical Specification :

- **8088 8/16 Bit CPU**
- **4.77 7.16 9.54 Mhz (switchable)**
- **3 Expansion slots**
- **360K 5.25" Disk Drive**
- **RS232 Serial Port**
- **Mouse Port**
- **8087 (optional)**
- **640K Ram (expandable)**
- **Clock/Calender**
- **20Mb Hard Disk (PC20 only)**
- **Parallel/Centronics Port**
- **AT Keyboard**
- **Commodore 1352 Mouse (£29.99 + vat) available extra**

The Commodore PC10 & PC20 Prices :

	MONO	CGA COLOUR	VGA MONO	VGA COLOUR
PC10 SD (Single Disk)	*512.00*	*649.00*	*670.00*	*759.00*
PC10 DD (Dual Disk)	*557.00*	*696.00*	*715.00*	*805.00*
PC20 HD (20Mb H Disk)	*715.00*	*849.00*	*892.00*	*985.00*

COMMODORE PC PRICES INCLUDE DELIVERY (NO HIDDEN CHARGES - CALL US NOW !
All Commodore PC10 & PC20 prices exclude VAT

Panasonic KXP1124

- 80 col,24 pin multi mode printer
- 160 cps, 53 cps NLQ at 10cpi
- 192 cps, 63 cps NLQ at 12cpi
- Adjustable push/pull tractors
- Front,rear and bottom feed
- 10, 12, 15, 17, 20cpi + proportional
- Front panel selection - no dips!
- 2 draft, 5 NLQ fonts standard
- Paper Parking
- A4 Landscape and Portrait
- Epson LQ and IBM Pro compatible

£255.00

Including VAT and courier delivery

PC MOUSE

The DEXXA PC MOUSE comes with :

- **9 pin connector**
- **9 to 25 pin adaptor**
- **Mouse Mat**
- **Mouse Driver Software**
- **Dexxa Menu Software**
- **Preprogrammed Pop Up Menus**
- **Users Manual**
- **Dexxa Paint It Graphics Software**

100 % Microsoft Compatible

For use with IBM PC XT, AT PS/2 or compatibles

only ***£37.50 + vat*** *(£43.13 inc)*

WE PART EXCHANGE PC SYSTEMS, ATARI ST, PRINTERS, MONITORS ETC. CALL NOW FOR PRICES

SOFTWARE

TIMEWORKS DTP - Atari ST	*69.99*
FIRST WORD PLUS - Atari ST	*56.99*
PROTEXT V4.2 - Atari ST	*69.99*
VIDI ST - Atari ST	*86.99*
DEGAS ELITE - Atari ST	*19.95*
METACOMCO BASIC - Atari ST	*9.99*
DATA MANAGER PRO - ST	*29.99*
DELUXE PAINT 3 - Amiga	*59.95*
PHOTON PAINT 2 - Amiga	*39.95*
MUSIC X - Amiga	*172.95*
VIDI AMIGA - Amiga	*99.99*
DATA MANAGER PRO - PC	*51.50*
WORDSTAR EXPRESS - PC	*92.00*
SUPERCALC 3.21 - PC	*92.00*
INFOMASTER - PC	*66.70*

HAND SCANNER

Genius Hand Held Scanner

Width 105 mm, 400 DPI. Package includes GS-2000 Scanner & Controller, Genius Scan Edit Software, OCR software & Dr Halo III. For all PC XT/AT compatibles.

£ 175.00 inc vat

+ courier delivery

BEST PRICES!

"I have never dealt with a better mail order company!" - Mr K.N. Leeds

BLANK DISKS

All of our blank disks are guaranteed and all supplied with labels.Our 3.5" DS/DD and 3.5" HDD are KAO unbranded disks. The Sony 2DD are branded and boxed in packs of ten. The 5.25" disks are supplied with sleeves and labels.

	3.5"	SONY 2DD	3,5" HDD	5.25"
Quantity x 10	£6.85	£11.49	£15.50	£3.28
Quantity x 20	£12.99	£21.49	£28.50	£6.34
Quantity x 30	£18.99	£31.49	£39.99	£9.38
Quantity x 50	£29.99	£51.49	£62.00	£14.95
Quantity x 100	£56.99	£99.99	£117.00	£27.95
Quantity x 200	£99.99			
Quantity x 250	£119.99			
Quantity x 300	£139.99			

Phone now for quotes on larger quantities !!

ATARI STE

UPGRADES!

All of our 520STE computers are checked to be working before we despatch them. All RAM upgrades are fitted on-site by our own engineers. All 520STE prices also include 3 working-days delivery by courier. Next day delivery is available for an extra £5.00 inc vat. All prices include vat.

REMEMBER - WE WERE THE FIRST TO OFFER THESE MACHINES TO YOU!

520 STE 512K RAM	£285.00
520 STE 1MB RAM	£339.00
520 STE 2MB RAM	£429.00
520 STE 4MB RAM	£599.00

D.I.Y. STE RAM UPGRADES :

520 STE to 1MB (2 x 256K Cards)	£62.50
520 STE to 2MB (2 x 1MB Cards)	£179.95
520 STE to 4MB (4 x 1MB Cards)	£359.95

PHILIPS CM 8833

14" Medium Resolution Colour Monitor. RGB/RCBI, composite and audio inputs. Stereo speakers and green text mode. CGA compatible. Supplied with one of four leads : Atari STFM / Atari ST E Stereo / Amiga A500 Stereo / PC Lead for CGA card.

£259.99

inc vat + courier delivery

star

All Star prices include VAT, parrallel lead, delivery and 12 Months On Site Warranty

Star LC10 Mono	£169.00
Star LC10 Colour	£219.95
Star LC24/10	£259.95
Star XB24/10	£499.95
Star XB24/15	£659.95
Colour Upgrade XB Range	£34.95

Genuine Star LC10 Ribbons...

5 x Black Ribbons	£16.95
10 x Black Ribbons	£32.95
5 x Colour Ribbons	£24.95
10 x Colour Ribbons	£47.95

ATARI

PORTFOLIO PC

Portfolio Pocket PC	£234.95
Smart Parallel Interface	£39.95
Smart Parallel Interface - with parallel cable	£41.95
32K Memory Card	£48.95
64K Memory Card	£84.95
128K Memory Card	£123.00
Finance Software Card	£47.50
PC Application Software	£47.50
Utilities Software Card	£47.50
Serial RS-232 Interface	£58.95
Super Memory Expander - (expands to 640K)	£169.95
Portfolio Card Drive	£67.95

NEW

ST MIDI

LATEST and ORIGINAL versions !!

C-Lab Creator SL V2.2
C-Lab Notator SL V2.2
C-Lab Unitor
C-Lab Export
Steinberg Pro 24 V3
Steinberg Pro 12 V1.1
Steinberg Cubase V1.5
Steinberg Soundworks
Steinberg Synthworks
Steinberg Avalon
Digital Muse Virtuoso
Digital Muse Prodigy
Dr.T Tiger Cub
Dr.T KCS 1.7MPE
FM Melody Maker
all other top packages available. Ring today for the Best Prices !!

Phone now for the Best Price !! (If we print 'em ..... you won't believe 'em !!)

CUBASE STE IN STOCK !

Notator

13 PIN DIN PLUG (ST Monitor)	£ 1.95
14 PIN DIN PLUG (ST Disk Drive)	£ 2.25
14 PIN DIN SOCKET (ST D/Drive)	£ 2.95
SCART PLUG	£ 1.95
PARALLEL LEAD (ST/PC/AMIGA)	£ 3.99
MOUSE MAT (Hi Quality)	£ 3.50
JOYS/MOUSE EXTENSION LEAD	£ 4.75
ST REPLACEMENT MOUSE LEAD	£ 3.75

ST MONITOR SWITCH BOX
only £14.95

Atari SM124 Mono Monitor	£ 99.99
Atari Megafile 30 Hard Disk	£ 449.95
Atari Megafile 60 Hard Disk	£ 619.95
Atari SLM804 Laser Printer	£ 1115.00
Cumana 1 MB External Drive	£ 89.95
Monitor Switch Box	£ 14.95
STE Stereo Scart Lead	£ 12.99

CITIZEN Swift 24

- ⭑ 24 Pin Printer
- ⭑ 192 cps draft
- ⭑ 64 cps LQ
- ⭑ Epson LQ compatible
- ⭑ IBM compatible
- ⭑ Nec P6+ character set
- ⭑ 5 resident LQ fonts
- ⭑ 80 column
- ⭑ Tractor feed
- ⭑ Single sheet feed
- ⭑ Parallel interface
- ⭑ Supplied with lead
- ⭑ 7 Colour option available extra
- ⭑ Beats LC24/10 !!
- ⭑ RRP £447.35

£314.95

INC VAT AND DELIVERY

Swift 24 Colour Kit - only £34.95 inc

MANNESMANN TALLY

MANNESMANN TALLY MT81 PRINTER

- ⭑ 9 Pin Dot Matrix
- ⭑ Parallel I/face
- ⭑ 155 cps high speed
- ⭑ 130 cps draft
- ⭑ 26 cps NLQ
- ⭑ Epson/IBM compatible
- ⭑ Tractor feed
- ⭑ Single sheet feeder
- ⭑ Paper Parking
- ⭑ Includes cable

⭑ 1 YEAR ON SITE WARRANTY FREE ⭑

£144.95

INC VAT AND DELIVERY

MT81 RIBBONS £3.95 EACH INC

BEST PRICES

(DEPT NCE), UNIT A, GRAFTON PLACE,
WORTHING, WEST SUSSEX. BN11 1QX

(0903) 700714

YOU CAN PLACE YOUR ORDER 24 HOURS A DAY

All prices include VAT and delivery unless otherwise stated. Goods despatched same day whenever possible. All prices are subject to change without notice. BEST PRICES only supply original equipment and not grey imports. All of our equipment is fully guaranteed. We stock all types of computer hardware and software - give us a call for our BEST PRICES.

Mail order only, callers and collections only by prior arrangement with us. Thank You.

NEXT DAY DELIVERY BY COURIER (MANY PRICES INCLUDE THIS ALREADY !)

ADD £5.00 INC VAT FOR ALL ORDERS OVER £100.00 INC VAT
ADD £7.50 INC VAT FOR ALL ORDERS UNDER £100.00 INC VAT

KICKSTART 1.2 chip for sale £21.00. Write: Gordon Keenan, 61 Glenfinnan Road, Maryhill, Glasgow, G20 8JG. Wanted: Any Ham, Radio software for the Amiga.

FOR sale: Amstrad original tape games. Immaculate condition, prices from £1. Old to new titles. Phone (0793) 693068 for a posted list. (Mirek, Swindon).

AMIGA datadisk for Superbase Personal. Complete British Amiga magazine index. S.A.E. for details or £10 for disk to: Twiddle, 52 Littleham Close, Bransholme, Hull, HU7 4RR.

FOR sale: TV Sports Football and Rocket Ranger, brand new! only £17 or £9 each. Also Photon Paint still in wrapper £10. Tel: (0903) 46760.

COMMODORE 64 with 1541 disk drive, and other accessories including C2N datasette, joystick, books, magazines, software, disks, etc. Offers around £190. Phone Chris (0533) 885473.

CPC 464. Excellent condition, loads of games etc. Mono monitor, games include: Gunship, ATF. Offers over £100. Call after 6 o'clock Kent (0303) 813060.

FOR sale: Mags, ACE 1-28, NCE 9-25, 27-52, 54-60, Offers to Ian Aitken, 7 Briar Place, Penpont, Thornhill, Dumfries, DG3 4BX. You pay postage.

ZX81 with power supply and manual (tatty but complete). No tape recorder leads. £15.00 Tel: (091) 3886057.

C64 games including Renegade III, Blasteroids, Total Eclipse plus many older games from £3 each. Phone (041) 9467793

AMSTRAD CPC464 colour monitor, joystick, magazines, handbooks, over 55 games, including Driller, Space Harrier, 720°, Adventures, good condition, £250 or near to that. Phone 01-805 4414.

AMSTRAD 6128 mono hundreds of games, CPM, DBII, Wordstar, magazines, Demon Cartridge, cassette lead, four months old, bargain at £150. Tel: (0282) 57355, Burnley, Lancs.

BBCB computer issue 4 board plus data recorder for sale. Tel: (0268) 756659.

AMIGA games Drakhen, Iron Lord, Switch Blade, Silkworm, Savage, Continental Circus, Zynaps, Trained Assassin, Purple Saturn Day. Exchange or sell £7. Tel: Stu (0423) 524046.

AMIGA Hard Drivin, Test Drive II plus data discs California Challenge and Super Cars, sell or exchange. Also brand new Spectrum and the best games. Tel: 01-504 8861.

EXCHANGE my Epson HX-20 Laptop computer, built-in printer and microcassette books etc. Value (RRP) £500 for best 24-pin printer. Tel: Woking (0483) 764857.

ATARI 65XE computer hardly ever used so in excellent condition with some games only £50. Contact Luigi on 01-735 4088 evenings, London only.

MONITOR. Genuine IBM CGA monitor (no. 5153) excellent condition, but won't suit my ST! Must sell, so best offer over £110. Reading (0734) 411179.

AMSTRAD CPC464 + monitor + games. Good condition £80 or swap for CBM64 disk drive. Phone (0293) 784394 after 5pm.

STFM software Starglider I, Wizball, Arkanoid, Sentinel, Tracker ECO £30. Starglider II, Leaderboard, Music Studio, Mindshadow, SuperCycle, Leather Goddess of Phobus, Xevious £45 or £7 each. STFM manual £10. (0482) 563440.

ATARI 520STFM, four months old, 14-inch colour monitor, lots of software including WordWriter, Flight Simulator 2, Degas Elite, excellent condition £250. Telephone: (0734) 328462.

AMSTRAD PPC512 twin 3 1/2-inch floppies c/w Sinclair screen Olivetti DM Printer, eight months old, never used, value over £1000 will accept £630 o.n.o. Tel: (0602) 293219 evenings.

SWAP my Sega set-up for best Electron set-up offered. Also Spectrum 128+2 for best Electron set-up or hardware. Paul, 3 Moorend Avenue, C'Wood, Birmingham, B37 5SD.

REELTIME 1512 Tutor £10 Able One WP DB sheet Comms package £10. Wanted Sinclair PC200 Z88 TasSign and TasPrint, Money Manager manual. Dave, Norwich 745512.

ATARI XL-XE games all on cassette well over 100 titles, send S.A.E. for list to: Richard Taylor, Tregeare, West Downs, Delabole, Cornwall, PL33 9DY.

ATARI 520STFM, memory upgraded, second 1 Meg drive, Vidi ST digitiser, over £1500 original software, all boxed, books, magazines £450. Phone 061 437 9918.

AMIGA software. Portal, MindFighter, Passengers on the Wind 1 + 2, Deluxe Paint, Amiga Gold Hits, Gnome Ranger, Myth, F-18 Interceptor, £7 each, £45 the lot. (0224) 824904.

BBC games for sale. All tapes, all originals, call Dave on (0727) 66341 any evening.

SWAP 1040STFM system worth £1000+ with mono monitor (1 week old!) for DX7 and CX5M/SFG0S tone module. (CXSM preferred) call Richard on Kelso (0573) 26032.

EPSON LQ500 printer including tractor feed and cut sheet feeder £150 o.n.o. (0277) 354884 (Essex).

MANNESMAN Tally 81 Dot Matrix Printer, paper, ribbon, PD if wanted, Epson and IBM compatible £99. Ring 01-398 5167. Also Amiga contacts wanted. Potential difference rule!!

ST games. Originals from £3 to £8 including Populous, Powerdrift, Batman, Falcon, Ghostbusters, R-Type, Microprose Soccer, Virus, plus lots more. Ring (05438) 4102 after 7pm.

COMMODORE Amiga A500. Basic system (1.2 machine) £275. Soundblaster Speakers and Amplifier £35. Together £300 and includes loads of bits & bobs. Phone Phil (03632) 3816.

AMIGA A500 starter system 1.2 machine, Soundblaster, 2 Joysticks, Modulator, Cover, Mat, good condition £300. Phone Phil Palmer, Crediton (03632) 3816.

AMIGA datadisk for Superbase Personal. Complete British Amiga magazine index. S.A.E. for details or £10 for disk to Twiddle, 52 Littleham Close, Bransholme, Hull, HU7 4RR.

AMSTRAD PCW8256 hardly used. Boxed, complete with manuals, software, etc. Must sell, hence only £250. Newcastle area. Tel: (091 272) 0656 after 6pm.

AMSTRAD PPC5125 £250.00 for quick sale as need cash. J. Curran, 24 Cyprus Road, (Flat 7), Finchley, London, N3.

DISC programmes for Commodore 64. Mini Office 2 £8, Easy File £12, both complete with original documentation. Phone (0383) 510749 after 6pm.

520ST, 2nd drive, various software, £450 o.n.o. Ring (0279) 27252 after 7pm. Ask for Brian. Cash only, buyer collects.

DOUBLE SIDED DOUBLE DENSITY

3½"

135 TPI 100%error free fully certified

FREE LABELS

LOW PRICE TOP QUALITY PRODUCT!

PROMPT DESPATCH

Bulk 5¼ certified 48 TPI disks complete packaged in tens. £3.13 per pack

INC VAT

42p EACH

DISK STORAGE BOXES
40 cap 3½" £3.50
80 cap 3½" £3.95

NEW! Mouse pockets £2.95 Mouse mats £2.64

PRINTER RIBBONS
LARGE STOCKS
CALL FOR
BEST PRICES

Now available 5¼" Disks

All prices inc VAT. Please add £3.50 post and packing per order. £10 for overnight delivery. All offers subject to availability.

VISA

Access

IMMEDIATE MEDIA
11 Bakewell Road
Peterborough PE2 OXU
Telephone 0733-371-617
24 hour service

RAMSOFT

AMIGA & ST SPECIALISTS

UNIT 1 DRAKE HOUSE
160 DRAKE STREET
ROCHDALE, LANCS
OL16 1PX
TEL: 0706 43519

* A500 BAT PACK *
A500, TV Modulator, Deluxe Paint II. Interceptor. New Zealand Story, & Batman - The Movie
***** £359.00 *****

A500 BAT PACK +
This Pack as above Plus
Ten Star Pack.
1: Amegas, 2: Art of Chess, 3: Barbarian, 4: Buggy Boy, 5: Ikari Warriors 6: Insanity Flight, 7: Mercenary Comp, 8: Terrorpods, 9: Thundercats, 10: Wizball.
R.S. PRICE ! £379.00

Class of 90's
Now in Stock
Only £525.00

MONITOR PACK.
Buy any pack & we will offer a Philips CM8833 FOR ONLY £239 inc lead

COMMODORE 1084 £229.00
PHILIPS CM 8833 ! £249.00
All Monitors Include Leads!

Universal Monitor Stands
Only £16.50

PRINTERS

STAR LC 10 MONO £159.00
STAR LC 10 COL. £199.00

PRINTER RIBBONS
ALL MAKES AVAILABLE, LOW PRICE
EG: STAR LC-10 MONO £4.49.

ALL OUR PRINTER PRICES ARE INCLUSIVE OF LEADS

NEC 1 MEG 3.5" EXT. DRIVE, Low Power, Throughport, Slimline, Only £79.95

MARCONI * RB2 - TRACKER BALL - ONLY £52.00

TARGET RAM EXPANSION WITH CLOCK - ONLY £79.95

ACCESS
VISA
&
STYLE
WELCOME

Please note, all our prices include VAT & Courier Delivery.
All hardware items despatched within 24 hrs, dependent on availability & cheque clearance, prices subject to change without prior notice at any time. Personal callers welcome.
We are open from 09.00 -17.30 Mon to Sat., Late night closing Friday 20.00. E&OE.

MEMORY UPGRADES

ONE STOP SOURCE FOR ALL PC MEMORY UPGRADES

Datrontech. Europe's only dedicated manufacturer and stockist for plug compatible memory. All products carry a five year warranty and are available ex-stock. Call for volume and dealer pricing.

1 SIMMS & SIPS

Memory module and chip level upgrades to suit all PC models. Call our unique advisory service for upgrade assistance.
AMSTRAD, AST, DELL, EPSON, EVEREX, HP, INTEL, IBM XT/ATs and CLONES, MITEC, NOVELL, OPUS, SUN, SILICON, GRAPHIC PLUS

	(£)
256K x 8 – 100	19
256K x 8 – 80	22
256K x 9 – 100	23
256K x 9 – 80	26
256K x 9 – 60	32
1M x 8 – 100	60
1M x 8 – 80	63
1M x 8 – 70	69
1M x 9 – 100	65
1M x 9 – 80	68
1M x 9 – 70	75
4M x 8 – 80	490
4M x 9 – 80	550

CALL FOR SIP PRICING

Memory board upgrades available for: ORCHID, EVEREX, TECMAR, INTEL, AST . . . Call sales office for details.

2 CHIP UPGRADES

DRAM, SRAM, EPROM & CACHÉ memory available from stock. Call for quantity pricing and speed selections.

	(£)		(£)
64K x 1 – 120	1.05	256K x 1 – 100	1.75
64K x 1 – 100	1.15	256K x 1 – 80	2.15
64K x 4 – 100	1.85	1M x 1 – 100	6.25
64K x 4 – 80	2.15	1M x 1 – 80	6.65
256K x 1 – 120	1.55	1M x 1 – 70	6.95
		256K x 4 – 100	6.45

*Scheduled orders are priced protected.
*Packaged styles include DIL and surface mount

3 New CO-PROCESSORS

		(£)
D8087	5MHz	65
D8087–1	10MHz	125
D8087–2	8MHz	95
D80287–6	6MHz	98
D80287–8	8MHz	150
D80287–10	10MHz	175
A80387DX–16	16MHz	260
A80387DX–20	20MHz	295
A80387DX–25	25MHz	370
A80387DX–33	33MHz	455
N80387SX–16	16MHz	235

*Excellent trade and volume discounts available
*CMOS options also available
*Weitek Co-Processors call sales office

4 COMPAQ MEMORY

	COMPAQ P/No.	PRICE (£)
DESKPRO 386/33		
2MB Module	115144	345
DESKPRO 386/25		
1MB Module	113131	165
4MB Module	113132	490
DESKPRO 386/20		
1MB Module	113131	165
4MB Module	113132	490

DESKPRO 386/20e		
1MB Module	113131	165
4MB Module	113132	490
1MB Exp/Bd	113633	170
4MB Exp/Bd	113634	550
DESKPRO 386/5		
1MB Module	113646	165
4MB Module	112534	490
1MB Exp/Bd	113633	170
4MB Exp/Bd	113634	550
DESKPRO 386/16		
1MB Kit	108071	255
4MB Kit	108072	680
1MB Exp/Bd	108069	280
2MB Exp/Bd	108060+ 108071	Call
4MB Exp/Bd	108070	995
8MB Exp/Bd	108070+ 108072	Call
PORTABLE II		
1MB Kit	113012	94
PORTABLE III		
512KB Kit	107331	71
2MB Kit	107332	182
PORTABLE 386		
1MB Kit	107651	288
4MB Kit	107653	930
4MB Extra/Bd	107654	930
COMPAQ SLT/286		
1MB Bd	110235	278
COMPAQ LTE/286 New		
1MB Bd	117081-001	295
2MB Bd	117081-002	595

*Call for details on our dealer support programme.

5 IBM MEMORY

XT/AT UPGRADES	(£)
128K board for XT/AT	78
Extended/Expansion boards	
Orchid Boards with memory	
512K for XT/AT	265
1MB	299
2MB	345
4MB	495
8MB	790

Other configurations available. Orchid boards take standard SIMM modules. User upgradeable.

PS/2 UPGRADES

Models 30/286, 50, 50Z, 55, 60, 70 & 80

PLANAR (MOTHERBOARD) MODULES:

	IBM P/No.	(£)
PS/2 25	78X8955	34
PS/2 30/286		
512K Kit	30F5348	86
2MB Kit	30F5360	229
PS/2 50/60		
As above fitted with IBM adaptor board	1497259	Call
PS/2 50Z		
2MB Module	6450604	274
512K Kit	30F5348	86
2MB Kit	30F5360	229
PS/2 55SX		
2MB Module	6450604	274

PS/2 70 PORTABLE		
2MB Module	6450604	274
PS/2 70 E61 & 121		
1MB Module	6450603	152
2MB Module	6450604	274
PS/2 70 A21		
2MB Module	6450608	286
PS/2 80/041		
1MB Bd	6450608	193
PS/2 80–111 & 311		
2MB Bd	6450379	322

New 4MB Kit 34F2933 Available now

WAIT NO LONGER for your IBM memory – all above are EX STOCK

IBM ADAPTOR BOARDS

2–8MB Expanded memory board using IBM 2MB SIMM modules (6450604) user upgradeable.

PS/2 50, 50Z, 55Z, 55SX & 60		
2–8MB Exp Bd	1497259	449
PS/2 70 & 80		
2–8MB Exp Bd	6450605	449

EMS/LIMM 4.0 BOARDS

Extended/expanded memory boards S/W configurable, Using std SIMM modules. User upgradeable.

	(£)
512KB 16/32	295
1MB	315
2MB	360
4MB	515
8MB	820

Call for other configurations

6 TOSHIBA MEMORY

	TOSHIBA P/No	(£)
PORTABLE T1600 New		
2MB card	PC8–PA8302U	344
PORTABLE T3100e		
512K card	PC9–PA8340U	148
2MB card	PC9–PA8341U	344
PORTABLE T3200		
3MB card	PC6–PA7137U	485
PORTABLE T5100		
2MB card	PC7–PA8301U	344
PORTABLE T5200		
2MB Module	PC10–PA8304U	344
PORTABLE T3200 SX New		
2MB card	PC12–PA8307U	344
DESKTOP T8500 SX		
2MB card	PC10–PA8304U	344

7 APPLE MEMORY

	(£)
MacINTOSH II, IIcx, IIx	
1MB Kit	98
2MB Kit	125
MacINTOSH IIci	
4MB Kit	240

Laserwriter II/NXT	
1MB Exp/Kit	145
4MB EXP/Kit	449

8 DEC MEMORY

	(£)
8MB VAX STN 3100	1,727
12MB	1,993
16MB	2,792

Call for trade pricing

9 SILICON GRAPHICS MEMORY

	(£)
8MB Model 4D/120, 220, 240, 280	1,685
4MB Model 4D/40, 50, 70 & 80	459
4MB Model 4D/20	459
16MB Model 4D/40, 50, 70, & 80	859

10 HP LASERJET UPGRADES

MEMORY

Laserjet II & II D			
1MB	£146	4MB	£399
2MB	£265		
Laserjet IIP New			
1MB	£179	3MB	£355
2MB	£285	4MB	£435

FONT CARTRIDGES New

100% HP compatable font cartridges

STANDARD CARTRIDGES:	(£)
86/A, C, D, E, G, H	49
86/B, F, J to Q, S to Y	69
86/R & Z	79
New 65-in-one CARTRIDGE	135

65 popular fonts on cartridge
*UK version includes £, Line Draw & OCR–A
*Equiv/Enhanced to HP Pro Collection

11 ATARI STE

	(£)
512K to 1MB	58
2MB	140
4MB	265

Datrontech also offer upgrades on popular Commodore, Amiga and Amstrad PCs. Call for details.

12 FIND OUT MORE

Please send me more details on the following:

1	2	3	4	5	6	7	8	9	10	11

Please tick

Name ....

Company ....

Address ....

....

Tel. No. ....

CALL 0252 313155

Board level products manufactured by Kingston Technology Inc. for whom Datrontech are exclusive U.K. agents.

Lowest Price Guaranteed For Memory Upgrades other than shown call sales office

DATRONTECH LTD
Datrontech House, 33 Grosvenor Road
Aldershot, Hampshire GU11 3DP
Fax: 0252 341939

SPECTRUM +2 Opus Discovery D/D Multiface 128, Joystick. All with manuals etc. Over 40 full price games + many budget only £200, why so cheap? Upgrading - phone Stephen 01-854 6964.

FOR sale: Amstrad CPC464 mono, joystick, £400 software, magazines, computer, still under guarantee, everything boxed, £300 o.n.o. Contact: M. Thomas, 26 Wordsworth Avenue, Penarth, CF6 1RL. Hurry!

AMIGA 500 - Spirit 1 1/2 meg memory expansion inboard - £175, Cumana 3.5: D/Drive - £60, Animation, D.T. Video software. Wanted: DMusic Okimate printer. Brighton (0273) 736070.

AMSTRAD CPC464 colour computer monitor, joystick, speech synthesisers, TV Tuner, 300+ games, top titles. Total value £824 sell for £350 o.n.o. Phone (0904) 656702 evenings.

MASTER 512 including twin 80T 5 1/4-inch drives, 20Mb hard disk, mono monitor, Pace modem, Daisywheel printer, Z80 2nd processor, many books, discs. Offers? 01-720 4619 7-10pm.

ATARI XL/XE software for sale. All originals and in mint condition. 6 disks, 6 F.P. tapes, 40 budget cassettes, titles include Hawkquest, Kick Off, valued over £200, sell for £100. (0506) 39722.

AMX mouse, Stop Press, Art and Max for CPC. Also tape and disc - games and serious. Offers: S.A.E. A. Eddy, 2 Riverside Cottage, Crathie, Ballater, Aberdeenshire, AB3 5TB.

CBM64 plus disk drive, 2 C2N's, Freeze Machine, £450 software, tape and disk, joystick, 40 blank disks, all boxed, various mags £260 o.n.o. Phone (0255) 507916.

KALAMAZOO D.D. business computer & printer v.g.c. but no software. No reasonable offer refused. Phone (0324) 712078 (Falkirk).

PRINTER for Amstrad CPC serial 8056 thermal printer with interface and paper. £35.00 o.n.o. Ring (03397) 42318.

AMSTRAD 464/6128 software (disc), Devpac 80 £20, Hisoft's 'C' £20, Laser Genius £12.50, Image System £12.50, Interdictor Pilot £10, Biggles £10, Computer Hits £10. (0908) 220486.

OLIVETTI PC I, twin 3 1/2-inch drives, 5 1/4-inch external drive, expansion box digital joystick, colour monitor, almost new £550. 01-501 2820.

A4 Handy Scanner with OCR software and Genius mouse for PC's and compatibles, all unused £250. Tel: (0227) 768056.

TANDON PCXT 20Mb 1 x 360 1 x 720 1 games port colour monitor 640K 1 x parallel 1 serial. Memory caches missing. Offers (0704) 66485.

COMMODORE 64, 1451DD, DPS1101 Daisywheel printer, midi, Financial, Music & general programs, £350 o.n.o. (061 998) 3494.

24PIN printer for sale. Panasonic KXP-1124. 6 months old. Very light home use only. Also IBM/ST printer cable and printer stand, £200. 01-459 7483.

AMSTRAD CPC 6128 9 months old, over £100.00, games, joystick and dust covers, excellent condition £300.00 o.n.o. Phone (0722) 29062 anytime.

SPECTRUM software, 20 games cassettes, (originals), £22. Tasword 2 £3.50. O-level Physics £3.50. Alphacom 32 printer with paper £30. Prices include Postage. Tel: (0258) 880394.

MEGA 1, monitor SM124, Hyperpaint, Hyperdraw, manuals, basic and machine books. Cost £640 December. Sell for £500 (Detest WIMP) (05585) 429 evenings.

COMMODORE 64 computer, complete with colour monitor, disk drive, printer and lots of software, good as new £450. (051 256) 9768.

ALL you need for £280.00, C64 C2N Datasette, 1541 disk drive, laser software worth over £1000.00, leisure and business, good condition (Southend) (0702) 331560.

ATARI 520STFM £200 would take Amstrad colour monitor in part exchange, memory upgrad for all Ataris ST/M/FM and STE duff ST computers wanted (0495) 272092.

AMSTRAD CPC464 colour monitor 60+ games, hoystick, manual, magazines, dust covers, the complete package worth £500+, will sell for £225. Tel: Bicester (0869) 245912 evenings.

SHARP MZ80A: Integral screen, tape deck, interfaced printer, double disk drive. Offers: Mr. Husbands, 34 Pleasant Street, Blackpool, FY1 2HU.

SPECTRUM 48k plus with software remote control joystick, new VTX5000 modem data corder all leads etc £100. Phone Geoff on (0492) 40380.

EPSON HX20 laptop various books extra printer paper, excellent condition, sits in own case with charging adaptor in exchange for Psion Organiser. London area - 01-890 9238.

PRISM 1000 modem 1200/75 £18. Ring Neville 01-737 7904 after 6pm, buyer collects (London).

SEGA master system plus with 2 joypads, 3D glasses plus 2 games built in and a 3D Blade Eagle game. All in good condition for £50. 01-451 7508.

COMMODORE 64, 1541 d/drive, MPS803 printer, tape deck, joysticks, motherboard, books, logo, various cartridges, extended Basic, games, blank diskettes, sell for £285. Ring Bedford (0234) 214127 evenings.

SPECTRUM +2, good condition, boxed Action Pack, Light gun + games. 2 joysticks + £250 worth of software, worth £400+. Bargain at £200 o.n.o. Telephone: Stuart, Sheffield (0742) 661117.

C64C 1541 disk drive, 15 printer plotter, Koala Pad graphics tablet with software, micro assembler cartridge, super 'C' language compiler and spare C64A (not working) with power supply (working), whole lot for £260. Phone (0494) 81 4515.

AMIGA A500 second drive, system disks, manuals, mouse, programming books on Basic, 'C' and M/code, software, blank disks, £400 o.n.o. Tel: Horley (0293) 771828.

BBCB plus software (includes Elite, White Knight Chess, Music Processor, Light Pen) £100 o.n.o. 01-654 8852.

C64 modem for sale compunet compatible 1200/75 baud £35-£40. Contact Sacha Mon-Fri 6.30pm + 01-570 0248.

AMIGA software: Licence to Kill, Space Harrier, Army Moves, Batman, Forgotten Worlds, will sell Forgotten Worlds and Batman for £15 each, the others at £10 each. Phone 01-908 0644 after 6pm. Ask for Robert.

SPECTRUM+3 disk drive, datacorder, VTX5000 modem. Panasonic printer, Multiface 3, mouse, all Tasman serious software, plus much more, many games, joysticks £400. (0634) 409645.

FOR sale: Superbase Personal 2 for Amiga, £60 or will swap for C compiler (Lattice or Aztec). Contact Dave Pettitt on (0832) 273652 evenings only.

AMSTRAD 2086SM with 5 1/4 ext Cit. 120D printer 32Mb WD Hard Card - Symphony XTree and much more software. 2 months u/gtee, £850 o.n.o. installation if reqd. Phone (0279) 812253 evenings.

ATARI ST games all originals for sale: Bloodwych, KickOff, R-Type, Operation Wolf, Skullduggery, Overlander, Arkanoid 2. Phone Damien on (0705) 694264 between 6 and 10pm weekdays.

SALE PC software Microsoft Multiplan version 4.01 2 3.5-inch original disks. No manual, brand new £12. Ring (021 471) 3335, Mr Yau.

AMSTRAD ASF9512 sheet feeder new, unused with Locoscript v2.29 (Mail & Spell) £90 buyer collects. (0908) 501249.

128K Spectrum + tape deck + £400 worth software + Speech Synth. + Drum-synth + joystick - interface total value £800. Sell for £120. Also some ST/IBM software. Tel: (0522) 681388.

ATARI 800XL, two 1050 drives, circuits, manuals, 1020 plotter, cassette. All with PSU's leads, books, software, additional hardware available £220, offers Norfolk (0603) 410117.

MSX Sony Hit-Bit M1 with Brother HR5 printer and over 40 games and Kuma Wordprocessor plus spreadsheet program £125 complete. Phone 01-393 3538.

COMMODORE C64C "Connoisseur's Pack", tape deck, joystick, games, "Freeze Frame IIIB" cartridge and PSU, boxed with manuals, only £200 o.n.o. Call John on Belfast 658939.

● PEN PALS

AMIGA contacts wanted, graphic artists, swappers send disks 100% return. Must be fast and reliable. Allan, 26 Ammerston Road, Middlesbrough, Cleveland, TS1 5LL.

DRAGON 32 contacts wanted, into MK and Basic and games. Want to write a M/C game? Also help given. 01-890 6337.

ACORN electron contacts wanted to swap ideas, programs 100% reply write to: Darren Worley, 24 Weatherby, Dunstable Beds LV6 1TW.

PC contacts wanted? Write to B Guy, 8 Berrylands, Orpington, Kent BR6 9TF.

AMIGA contacts wanted, worldwide 100% reply no lamers. Send disks, lists to John, 22 Convent Street, Castle Island, Co Kerry Eire.

AMIGA owners wanted to swap old and new stuff. Disks(s) ensure reply. Write to Craig Thornton, 10 Dalderby Crescent, Nettleham, Lincoln, LN2 2QB.

AMIGA contacts wanted to swap the latest. Overseas welcome send your disks or letters to Shane, 11 Cadge Road, Norwich, Norfolk NR5 8AT.

ST contacts wanted to swap games, tips etc 100% reply. Write to Chris, 12 Valerie Close, Fazakerey, Liverpool 10 4XS.

AMIGA contacts wanted fast. Send disks/lists for a 100% reply to Patrick Hickey, 3 Church Hill, Edinburgh EH10 4BG.

EXTREMELY lonely male, computer maniac seeks similar female with messy hand writing for relationship. Call me, Dan on (0536) 723610 must be Kettering area, Cheers.

AMIGA contacts wanted for latest stuff, 100% reply. Send discs to Patrick, 92 Lennox Road, Portsmouth, Todmorden, Lancs OL14 8QD. Phone (0706) 815467 after 4pm.

AMIGA contacts wanted must be hot, fast and reliable. Write to JSL, 54 Paddocks Lane, Cheltenham, Glos GL50 4NX. Forget it lamers! Hi Guyz!!

AMIGA contacts. P.O Box, 1025 QLD, Australia 4012. Write now.

ST contacts desperately wanted! Definate 100% reply. Send games list (if possible). Write to Stephen Dang, 6 Bridge Close, Burgess Hill, W Sussex RH15 8PD.

AMIGA contacts for both serious and games software. Write to Robert, 43 Ethersall Road, Nelson, Lancs BB9 QRP with list or phone me on (0282) 691005.

ST contacts wanted, LSD or Medway etc? If so then write now. Guaranteed 100% reply. Write to Mark Anderson, Churchills Hall, The Schools, Shrewsbury, Salop. SY3 7AT.

AMIGA contacts wanted. Write to Steve, 12 Ashwell Road, Bury, St Edmunds, Suffolk. Also disc of virus killers, 47 programmes, killing all known viruses £2.50.

AMIGA contacts wanted, forget the rest. Send lists, disks to J Auld, Homelea Church Road, Derry Hill, Wilts SN11 9NR. World wide or local 100% reply.

AMIGA contacts to swap software, hints etc. 100% reply, disks etc to Stephenson, The Nest, Llanaber Road, Llanaber, Barmouth, Gwynedd.

AMIGA contacts wanted fast reliable. Especially from groups. All welcome. Gar 31 Foster Street, Brotton, Saltburn, Cleveland. TS12 2TR. Disks get priority all letters answered.

ST contacts wanted if into Midi, DTP and utilities 100% reply no gamers. Write to Jim, The Caravan, Four Winds, Lower Moor, ST Davids, Haverfordwest, Wales .

PC contacts wanted 100% reply, write to B Guy, 8 Berrylands, Orpington, Kent BR6 9TF.

AMIGA owner looking for contacts in the UK. Reply to Ian at 211 Verity Crescent, Canford Heath, Poole, Dorset BH17 7UA beginners and lamers welcome.

AMIGA contacts wanted to swap latest stuff. 101% reply (preferrably in Ireland) Send disks, lists to Paul. 17 Beech Park, Viewmount, Waterford, Ireland. Very fast replies.

WANTED reliable Amiga contacts to swap games, utilities etc. Please write or phone Mark on 01-398 5167 or write to 54 Grove Way, Esher, Surrey KT10 8HN.

FAST Amiga contacts wanted. Contact me! (0902) 758826 ask for Suky. Greets to UCS Skum Uk Amnesty THR Enigma. Remember only fast contacts no lamers please!

ST contacts wanted to swap disks, hints, tips etc 100% reply into all the good CD stuff. Write to ACE 303 Link Road, Canvey, Essex.

ATARI ST lover wants contacts new games I want for old games, hints. Send list to Scott Fleming, 57 Rossie Street, Tayside, Scotland DD11 3DE.

AMIGA sound Crazy contacts wanted urgently! Soundtracker users should contact Beal at Dunraven, Penally, Dyfed SA70 7QE. P.S Hi to Iceman. Neil, Schmoo, Dodge Resistance Ta!

ST contacts wanted to swap PD Demos, games, utilities etc. No illegal compacted crap. 100% reply. Lists to M Salt, 23 Harewood Road, Irlam, Manchester M30 6DJ.

ULTIMATE BUSINESS MACHINES

IF YOU THINK YOU HAVE TRIED THE BEST..TRY THE ULTIMATE
OPEN MON-FRI 9 TILL 6 SATURDAY 9 TILL 1

AMSTRAD

MODEL	MON	COL	EGA
PCW8256	318		
PCW8512	399		
PCW9512	424		
PC1512SD	364	438	
PC1512DD	438	514	
PC1512HD	559	636	
PC1640SD	458	544	628
PC1640DD	518	597	682
PC1640HD	688	778	858

SOFT-INC	MON	COL	12"	14"
PC2086SD	538	618	699	786
PC2086DD	598	679	768	849
PC2086HD	765	851	936	1021

On-Site-Warranty £30 for above
Below inc Maintenance

PC1286SD	750	835	920	1005
PC2286DD	851	936	1021	1106
PC2286HD	1021	1106	1191	1276
PC1386SD	1180	1265	1351	1436
PC2386HD	1702	1787	1872	1957

OLIVETTI

The new Olivetti PCS Range offers unbeatable performance at an incredibley low price. We feel that the PCS range offers you the customer a better deal than is presently on offer from any other manufacturer.
8086 compatable running at 10Mhz, 640K ram expandable to 2.5Mb on motherboard 3 full size slots and on-site-warranty makes this the deal of the 90's

MODEL	MON	COL
PCS86SD	562	719
PCS86DD	630	803
PCS86HD	803	976
PCS286DD	889	1062
PCS286HD20	990	1149
PCS286HD40	1062	1235

All PCS have VGA Monitors

COMMODORE

NEW RANGE

MODEL	MON	COL	MON VGA	COL VGA
PC10SD	499	649	669	759
PC10DD	564	699	726	819
PC20HD	699	829	726	964
AT80286				
PC30HD			1022	1167
PC40HD40			1399	1599
PC40HD-T			1699	1899
PC50HD			Call	Call
PC60HD			Call	Call

All Commodores come with 12 Months on site warranty

SCHNEIDER

MODEL	MON	COL	ON-SITE
EURO PC	375	525	Included
5.25" Ext D/Drive	99		
3.5" Ext D/Drive	119		

HYUNDAI

MODEL	MON	COL	EGA	VGA
XT-S/D	399	549	699	759
XT-D/D	469	609	759	819
XT-HD20	599	749	899	959
XT-HD30	619	769	919	979

All Above have 640K Ram 5 slots 102 Keyboard 10Mhz processor MSDos 3.3 GWBasic 5.25" 360K Floppy.
For 3.5" 720K Floppy ADD £30

12 Months on site = £35

PORTABLE
LT3 AT 1MB RAM 20MB 1399

SHARP

PORTABLES

4602 DUAL DISK XT	863
4641 40MB XT	1463
5541 40MB AT VGA	2330

SAMSUNG

MODEL	MON	COL	EGA	VGA
PC/XT				
3001 SD	479	629	799	899
3001 DD	549	699	869	969
3001 HD20	679	829	999	1099
3001 HD30	699	849	1019	1119
AT80286 10Mhz 640K RAM				
6001 SD	879	1029	1199	1299
6001 DD	949	1099	1269	1369
6001HD20	1079	1229	1399	1599
6001HD30	1099	1249	1419	1619
AT80286 12Mhz 1MB RAM VGA				
6512 SD	1099	1249		
6512 DD	1169	1319		
6512HD20	1299	1449		
6512HD40	1349	1499		
AT80386 20Mhz 2MB RAM				
S800DD	1699	1859	1899	

All Samsung Computers and Monitors have 12 months On-Site-Maintenance included

STAR

MODEL	SPEED	PRICE
9 PIN DOT MATRIX		
LC10	144/36	* 127
LC10-II	180/50	* 150
LC10-Colour	144/36	* 164
LC15	180/45	* 254
FR10	300/76	* 289
FR15	300/76	* 379
24PIN DOT MATRIX		
LC24-10	200/67	* 194
LC24-15	200/67	* 324
XB24-10	240/80	* 375
XB24-15	240/80	* 495
LASER PRINTERS		
LASER 8	8PPM	*1198
LASER 8 D	8PPM	*1685

CONSUMABLES

RIBBONS	MONO	COLOUR
LC10	3.50	5.50
LC24-10/15	4.50	
FR/XB10/15	6.00	12.00

PANASONIC

MODEL	SPEED	PRICE
9 PIN DOT MATRIX		
KXP1081	144/28	* 123
KXP1180	192/36	* 149
KXP1592	216/45	* 254
KXP1595	288/65	* 314
24 PIN DOT MATRIX		
KXP1124	192/63	* 225
KXP1540	288/65	* 405
LASER PRINTERS		
KXP4450	11PPM	*1169

ACCESSORIES

	RIBBONS	S/FEED
KXP1081	5.80	
KXP1180	5.80	70
KXP1592	5.80	161
KXP1595	5.80	161
KXP1124	5.80	80
KXP1540	6.90	161

CITIZEN

MODEL	SPEED	PRICE
9 PIN DOT MATRIX		
120D PAR	120/25	* 107
120D SER	120/25	* 124
120D COM	120/25	* 139
180E PAR	173/30	* 128
180E SER	173/30	* 154
PRODOT 9		* 279
SWIFT 24 PIN	160/60	* 245

MANNESMAN

MT81	120/25	* 104

HYUNDAI

HY910 10"	216/37	* 135
HY920 15"	216/37	* 199

H P

MODEL	PRICE
THINKJET	* 254
QUITEJET	* 334
QUITEJET +	* 398
DESKJET	* 434
DESKJET +	* 519
PAINTJET	* 644
RUGGED WRITER	* 849
HP LASERS	
LASERJET IIP	* 879
LASERJET II	*1248
LASERJET IID	*1879

AKHTER

ACL135	135/27	* 119
ACL480 10"	480/55	* 299
ACL700 15"	480/55	* 399

EPSON

MODEL	SPEED	PRICE
LX400	180/30	130
LX850	240/48	199
FX850	264/54	329
FX1050	240/48	393
EX800	300/60	459
EX1000	300/60	599
DFX5000	533/400	1139
LQ400	180/60	209
LQ550	180/60	279
LQ860	290/88	499
LQ1050	264/88	589
LQ1060	290/88	639
LQ2550	400/133	899
TLQ4800	250/83	1499
SQ850	600/198	499
SQ2550	600/198	863
GQ5000	LASER	* 939

PRINTERS = * INCLUDE ON-SITE-MAINTENANCE

A1 PLOTTER

HITACHI 674-DR
Floor standing A4/A1 4 pen plotter, HP7580B compatable
128K buffed RS232 Interface
re-plot facility, Auto pen capping
Zoom-up/down facility
400mm/sec 0.025 resolution
61 built-in character sets
LCD menu driven display
12 Months on-site-replacement
optional 1MB buffer upgrade

£2999

A3 PLOTTER

HITACHI 681-XA
Desk top A4/A3 4 pen plotter
HP7475A compatable
400mm/sec speed
RS232/Parallel Interface
19 Built in character sets
8K buffer
0.025" resolution
Soft pen landing (Quiet)
Weight = 6.5Kg

£599

CANON

MODEL		PRICE
LASERS		
LBP4	4PPM	* 869
LBP8-III	8PPM	*1359
LBP8-IIIT	8PPM	*1764
LBP8-IIIR	8PPM	*1909
SCANNERS		
IX-12 ROLLERBED		374
IX-12F FLATBED		665
IX-31F INTERFACE		99
OCR SOFTWARE		304
BUBBLEJETS		
BJ-130		528

DISK DRIVES

3.5" 720K	INTERNAL	59
3.5" 1.44MB	INTERNAL	69
5.25" 360K	INTERNAL	39
5.25" 1.2MB	INTERNAL	59
3.5" 720K	EXTERNAL	135
5.25" 360K	EXTERNAL	69
5.25" 1.2MB	EXTERNAL	95
40MB TAPE STREAMER		249
32MB HARDCARD 40MS		199
AMIGA 2ND DRIVE 3.5"		65
ATARI 2ND DRIVE 3.5"		73
AMIGA/ATARI 42MB H/D		399

MONITORS

MONOCROME	
PHILIPS 7513 12"GRN	71
MITSUBUSHI 12" GRN	65
CGA	
PHILIPS 8833 14"	199
EGA	
ECM 5400 14"	249
VGA MONO	
SAMSUNG 2611	85
VGA COLOUR	
ECM 5413 14"	259
MULTI-SYNC	
MTS 9600 14"	309

W/P

GEM 1ST WORD + V2	134
LOTUS MANUSCRIPT	269
MULTIMATE ADVANTAGEII	259
PROF WRITEV2.1	169
SMART WP inc Spellcheck	150
SMARTWARE II WP	150
BORLAND SPRINT	120
TURBO LIGHTNING	39
SUPERWRITER	117
WORD V5	259
WORDCRAFT V6	261
WORDPERFECT V5.1	255
WORDSTAR PROF V5.5	189
WORDSTAR 2000 + R3	245

NOVELL

ELS I 4 USER V2.0A	359
ELS II 8 USER V2.15	920
ADVANCED V2.15	1660
SFT V2.15	2596
NETWARE 386 V3	4020
NE1000 COMPAT CARD	139

CALL FOR FURTHER INFORMATION

DATABASE

ASPECT	377
CARDBOX PLUS V4	236
PERSONAL CARDBOX +	93
CLIPPER	305
DATAEASE V4	417
DATAFLEX DEV	399
DATAFLEX R/T	155
DATAPERFECT	280
dBASE IV	320
dBASE IV DEV	499
dBXL V1.3	179
DELTA 5	365
FOXBASE PLUS V2.1	257
FOXPRO V1	387
PARADOX 3	357
PARADOX 2	270
RETRIEVE III	99
RETRIEVE IV	209
SMART DATA MANAGER	270
SMARTWARE II DATA MAN	270
SUPER dB	170

SPREADSHEET

EXCEL V2.1	257
HAL	90
INWORD	46
LOTUS 1-2-3 REL 3	259
MULTIPLAN V4	98
PC PLANNER	129
PFS PROF PLAN	126
PLAN PERFECT V5	168
QUATTRO V1	60
SIDEWAYS	35
SILVERADO FOR 123	125
SMART SPREADSHEET	195
SMARTWARE II SPREAD	225
SUPERCALC 5	238

COMMS

SAGE CHIT-CHAT	69
CROSSTALK XVI	69
DATATALK	80
MIRROR III (UK)	130
MODEMS	
AMSTRAD MC2400 INT	129
AKHTER 2400 AUTO INT	119

DTP/GRAPHS

TIMEWORKS	69
BYLINE	126
db PUBLISHER	275
FINESSE V2	97
GEM ARTLINE	334
GEM DTP V2	233
GEM SCAN V1.1	67
PAGE ABILITY	115
ALDUS PAGEMAKER 3	450
VENTURA 2	520
WORDCRAFT ELITE V4	519
OFFICE PUBLISHER	327
3B2 V2	780
CHART 3	163
CHART MASTER	127
CONCORDE V3	420
DRAW APPLAUSE	310
FREELANCE PLUS V3	265
GEM DRAW PLUS V2.01	134
GEM PRESENTATION V3.1	267
GRAPH WRITER	265
HARVARD GRAPHICS V2.1	217
SIGN MASTER	95

UTILITIES

AGENDA	220
CLAM	105
EUREKA	78
FASTBACK PLUS	95
IZE	195
MACE UTILS	53
MAGELLAN	69
NETWORKER PLUS	155
MENUGEN	40
METRO	55
NORTON UTILITIES	45
NORTON ADVANCED	67
NORTON COMMANDER	35
NORTON EDITOR	35
OFFICE WORKS	185
OVERDRIVE	41
PC TOOLS DELUXE V5.5	84
REFEREE	37
SIDEKICK PLUS	78
SIDEKICK	36
SUPERKEY	36
ULTRALOCK	128
XTREE V2	32
XTREE PRO	60

LANGUAGES

BASIC COMPILER V6	146
C COMPILER V5.1	202
COBOL COMPILER V3	358
FORTRAN COMPILER V5	202
MACRO ASSEMBLER V5.1	75
PASCAL COMPILER V4	137
QUICK BASIC V4.5	49
QUICK PASCAL	49
SORT V1.01	98
TURBO ASSEM-DEBUG	78
TURBO BASIC	36
TURBO BASIC DB TOOLS	36
TURBO BASIC ED-TOOLS	36
TURBO C PROF V2	120
TURBO C V2	60
TURBO PASCAL V5.5	60
TURBO PASCAL PROF V5.5	120
TURBO PASCAL DEV LIB	138
TURBO PASCAL DB T/BOX	36
TURBO PASCAL ED T/BOX	36
TURBO PASCAL GAMES	36
TURBO PASCAL GR/TBOX	36
TURBO PROLOG	60
TURBO PROLOG T/BOX	36

INTEGRATED

ABILITY	59
ABILITY PLUS	115
FIRST FRAMEWORK	56
FRAMEWORK III	325
LOGISTIX	115
OPEN ACCESS II PLUS	357
PFS FIRST CHOICE	76
SMART SYSTEM V3.1	350
SMARTWARE II SYSTEM	348
SYMPHONY V2	370
WORKS V1	94

ACCOUNTING

NEW SAGE STERLING RANGE

BOOKEEPER	64
PAYROLL 2	129
JOB COSTING	129
ACCOUNTANT	162
ACCOUNTANT PLUS	259
FINANCIAL CONTROLLER	324

SPECIFY 3.5"/5.25"

SCOOP PURCHASE

COMPUTER, PRINTER & SOFTWARE BUNDLE

£299 + VAT

SANYO MBC 550 COMPUTER, MSDOS 2.11,12" AMBER MONITOR,135CPS DOT MATRIX PRINTER WORDSTAR WORD PROCESSING AND CALCSTAR SPREADSHEET-HURRY WHILE STOCKS LAST

ULTIMATE BUSINESS MACHINES LTD
5 WATER STREET
EARBY
COLNE
LANCASHIRE BB8 6QP
TELEPHONE

(0282) 843001
VISA & ACCESS

DELIVERY CHARGES UK MAINLAND

	NEXTDAY	4-DAY
HARDWARE	£15	£10 + VAT
SOFTWARE	£10	£ 8 + VAT
CONSUMABLES	£5	£ 3 + VAT

TERMS

All prices exclude VAT & Delivery charges. Strict Cash with Order. Visa/Access welcome. Cheques made out to Ultimate Business Machines Ltd. Official orders from Government, PLC's & Educational bodies accepted.

Callers welcome but by appointment only

AMIGA contacts wanted, especially if you are interested in stuff other than shoot 'em ups. Call 01-952 1491 any time.

AMIGA contacts required, write to AXX, at 38 Westacre Gardens, Yardley, Birmingham B33 8RE.

AMIGA contacts wanted to swap software, especially around London . No beginners please, 100% reply guaranteed, but must be quick. Gary 168D Boundaries Road, London SW12 8HF.

● BULLETIN BOARDS

THE Gnome at Home BBS V23v, 24hrs, 01-888 8894. A lot more than toadstools.

OLEF 1 your on line electronic friend. A 24 hour BBS. It's FREE and all callers are welcome. Phone 01-882 7353.

FORTH View BBS now 24hrs. Tel 031 660 6680. Great online games, V21, 22, 22bis, 23. Running Eazihost a British comms package. Give Roger a call.

AMIGA South East BBS, unlimited downloads. Instant access and hundreds of Echomail Messages V22, V22BIS, 24 hours weekends, 7pm-8am weekdays. Tel: (0293) 28464 (Crawley).

OLEF 1 your on line electronic friend. A 24 hour BBS. It's free and all callers are welcome. Tel: 01-882 9808.

VIEWDATA BBS 24hr service, call us anytime on: (0266) 340425, all new callers welcome.

SHEFFIELD'S alternative solution BBS. Tel: (0742) 325232, V21/22/23/22BIS, 8N1, 24 hrs. Atari, IBM PC, Amiga, BBC downloads. E-Mail, F-Mail, online games all welcome. No fees! Node #1022.

CHAT with a yank a unique BBS conf only on the Max BBS, swap ideas, tips, utils, warz etc etc. Call Max: 0905 56610. HST.

AMIGA owners! Call the parallel dimension BBS now! Tel: 0992 447273 (MNP 5). 22.30-08.00 weekdays, 24 hrs weekends. Public Domain, demos, music, graphics, programming, adventures, messages, suggestions and more!!!

VIEWDATA BBS: Over 1,000 pages online for any caller to view no need to join. Dial (0226) 340425 24 hrs, new callers welcome.

ARCHIE owners with modems are you out there need support on BBS, call 0905 56610 HST if you can help or Tel: (0905) 53248, modem voice.

BLITTER BBS, the Amiga only board now supports up to 9600 Baud, so come on give it a call, all bauds. From 300. Tel: (0292)) 671638.

BATH BBS the only Multiline "Atari" based board in the U.K. Call 0225 835841/840060 8N1 V21/23/22/22BIS the best Atari board in the west!

25,000 pages of telesoftware, chat, help, news, views and reviews, on the Gnome At Home BBS, V23, 24 hrs. Tel: 01-888 8894. It's an experience........ but then so is death.

0226 340425 24hrs View data BBS. Log on to this professional looking system and enjoy!

AMIGA south east BBS, V22, V22BIS for Amiga, ST, PC and whatever computer you own. 19.00-08.00 weekdays, 14.00-08.00 weekends only. Tel: 0293 228464

BB USERS, SYSOPS. I am in the process of setting my own BB up and want contacts. Write to Gary, The Cottage, Church Road, Fundenhall, Norwich, Norfolk NRI6 IEJ.

CALL the brilliant Phantom Viewdata on (0226) 340425, V23v, 24 hours.

GNOMES, Toadstools, chat, help and telesoftware. All this and much (much) more on the Gnome at Home BBS, 01-888-8894. V23. 24hrs. UData. Be there or be square!!!

HALFWITS BBS. Now on line from noon until midnight weekdays and all weekend. Includes Framework, where you could finance next quarter's telephone bill! 2400/1200. 0272 340310.

KILDARE BBSV21 at present 2100-2400 Amiga 045 21437.

MERLIN BBS down loads for Atari ST, IBM PC and clones Amiga, BBC Music 500, 5000 and Midi. V21 V23 V22 V22BIS 24 hr. Tel: 0443 834179.

OLEF1 Your On-Line Electronic friend. A 24 hour BBS. It's FREE and all callers are welcome. Phone 01-882-9808.

OPEN access BBS on line 6pm to 8am Mon-Fri 24 hrs weekends, Art demos etc. Call 01-427 3974.

PC Forum Wildcat BBS. Tel: 0322 335348, World Wide Echo Mail, files, live games, also now read mail offline with QMX! Baud rates V21 V22 V23 BIS V23, call Tony today!

PHANTOM Viewdata BBS – 24hr 0226 340425 – over 1000 pages available plus some special CVG areas – Log on and try it today.

PHASE 2 Bulletin Board now online. 24hrs Viewdata (scrolling soon). Loadsa new sections. Sysop is transistor. Fast 20 Meg drive. Self run sections available. Ring (081) 330 7738:

PHONE one of the best BBS's in the west! IBM PC, Atari ST, and UCSD P-system supported, Pecan BBS – Bristol (0272) 248076, 24 hrs, V21, V22 and V22BIS.

PUBLIC House BBS for the Amiga. Tel: Cardiff 0222 221168. All Bauds to 2400. Free membership, call 7pm-9am and 24hrs weekend. Many files online. C'mon give it a call today!

PUBLIC house BBS for the Amiga, PC and ST. Call 0222 221168 7pm to 9am w/days and 24 hrs w/ends. Bands 300/300 1200/75 1200/1200 2400/2400.

SAS BBS :(0742) 325232, V21/22/23/22BIS, 8N1, 24 hrs, ringback, online games, files, IBM helpline, Fnet, X-net, E-mail, F-mail. Send E-mail to BBS's World Wide. No fees! Fnet Node #1022.

ST users, foundation BBS, 24 hrs V21, V22, V22 BIS. All welcome, no download limit. Tel: 0473 688183 (Ipswich).

THE Loft BBS 0442 230461 Atari ST and IBM Downloads. Call now – Sysop Martin Carter.

THE one to call, free for all. Bath BBS online 24 hours. Call now all speeds to 2400 Bath BBS 0225 83584l. The Best (ST Board) in the West. M. Burridge, 43 Midford Road, Combe Down, Bath BA2 5RW.

THE one to call, free for all. Bath BBS online 24 hours. Call now all speeds to 2400 Bath BBS 0225 83584l. The Best (ST Board) in the West. M. Burridge, 43 Midford Road, Combe Down, Bath BA2 5RW.

WEST Coast BBS Tel: 0752 670784 Speeds 300/300 12/75 8.N.I. Times 19.00 – 06.00 hrs daily. (P.C. Einstein CP/M + others under development) All welcome, why not call tonight?

BUILD IT YOURSELF!

MOTHERBOARDS

XT TURBO
12MHz, V20, 0k, 8 slots. Small size, takes 256k x 4 DIL.
£62.10 + £4.50 p&p

AT TURBO
12MHz, 0k, up to 4 M on board. Seven slots, takes 256k x 1, or 256k x 4, or 1M x 1.
£158.00 + £4.50 p&p

AT TURBO PLUS
12MHz, up to 4M on board, Eight slots, takes 256k x 4 or SIPs. EMS fitted.
£188.00 + £4.50 p&p

"SKELETON" SYSTEMS

These systems include case, 180W PSU and motherboard, fully assembled. You add memory, keyboard, display, floppy drive and adapter cards.

12MHz XT £155
12MHz AT £250
16MHz AT £305
Carriage £10

CASES

XT/AT CASE
Space for three 5.25" floppy/hard disk drives and one 3.5" drive.
£44.50 (+ £6 p&p)
180W PSU **£44.85**
(+ £3 p&p)
(Suits budget case)

DE-LUXE CASE
Same disk space but prettier! Speed display.
£65.00 (+ £6 p&p)

MINI TOWER CASE
As DE-LUXE case but desk-top tower style.
£72.50 (+ £6 p&p)
200W PSU **£69** + £3

PC-DIY BOOK

If you are not sure how to go about building your own PC, this book is for you. 112 pages full of DIY tips for **£7.95** including postage. (No VAT)

VAT is INCLUDED in all our prices. Why not telephone or write for our FREE catalogue?

DISPLAY ADAPTORS

UNIVERSAL VGA
This board auto-switches between 8 and 16 bit, drives mono, EGA and VGA monitors, (in native mode) and supports all standard VGA modes. Easy upgrade to extended VGA to give 1024 by 768.
£137.00 (+ £2 p&p)

DUAL CGA/HERC
Auto-switch, plus port for printer.
£38.00 (+ £2 p&p)
102 keyboard £46
+ £6 p&p

I/O ADAPTORS

RS232 short card
£16.10 (+ £2 p&p)

SERIAL/GAME/ PARALLEL CARD
Sockets for serial 2
£14.50 (+ £2 p&p)

FLOPPY CONTROLLER
for XT or AT, 360, 720, 1.2, 1.44. Two drives 3.5" or 5.25".
£24 (£2 p&p)

BLACKMORE ELECTRONICS LTD

4 THE PLOCKS
BLANDFORD FORUM
DORSET DT11 7AA

Telephone: (0258) 451347
Fax: (0258) 456046

ALL MAJOR CREDIT CARDS ACCEPTED BY POST, TELEPHONE OR FAX

COMPUTERS/PRINTERS GUIDE

VISIT OUR SHOWROOM IN WEST LONDON OR WE WILL DELIVER, ALL PRICES

EALING COMPUTER CENTRE

ATARI ST

STE
ARRIVED BLITTER
CHIP, 4096 COLOURS
BETTER SOUND
-STEREO-
EASY TO EXPAND
RAM

520 Explorer STE Hyper

Free Hyper Pack Includes (RRP £105) Hyper Paint, Hyper Draw, Borodino

£289.99
+ £50 voucher + Basic

520 Power STE Hyper

20 Superb Games, Business & Music software, joystick & FREE Hyper Pack

£369.99

1040 STE

1MB Drive 1040 KRAM, TV Modulator

£449

AMIGA

AMIGA BATMAN PACK

Incl. Batman, New Zealand Story, F-16 Interceptor, Deluxe Paint II + 10 Disks, TV Mod

£369

DRIVES AMIGA

1MB Cumana 3.5"Switch/Port	£85
1MB. DDL, LTD 3.5" Switch/Port	£69
HD 20MB A500	£349

MONITORS AMIGA/64c

Colour, RGB, Med, Resolution Stereo 1084S 14"

£249

DRIVES ATARI

1MB Cumana 3.5" inc PSU	£89
1MB DDL LTD 3.5" inc PSU	£78

PRINTERS ST, AMIGA, PC

M.T. 81

Great little printer, by Mannesmann Tally, 80 col, 9 Pin, 24/130 cps

BEST DEAL

£139.99

STAR LC-10

Famous Printers, 9 Pin, 80 col, 144 cps

Mono	£169.00
Colour	£219.00

STAR LC24-10

Popular 24 Pin Printer, Multifont, 80 columns, 60/180cps LOW PRICE

£239.99

PANASONIC KXP 1124

Very Good Quality 24 Pin, Multifont 11" Printer 63/192cps

£269.99

19 Queens Parade, Ealing, London W5 3HQ. Tel 01-991 0928
Prices include delivery for software and small items. For next day courier add £6.99 mainland ★
★ All offers subject to availability. E&OE. ★
We are on the corner of Hangar Lane (North Circular) & Queens Drive
★ Easy Parking ★ Most models in stock ★ **VISA AND ACCESS**

● SERVICES

PROBLEMS with your Amiga? Expert advice given to anyone needing tuition with software or hardware. Your Amiga consultant, Richard on 01-461 4730.

CV's WP Pricelists done for you. Reasonable rates. All work done in complete confidence. For details please send S.A.E. to Martin Joyce, 98 St Johns Road, Wembley, Middx, HA9 7JN or Phone: 01-903 5428.

WORD Processing service, CVs, assignments, letters of application, quality print on a 24 pin printer. All types of work undertaken. Tel: Leeds (0532) 300070.

CPC tape to disc transfer service (including loading screens and infinite lives etc). For FREE details send S.A.E. to IFE, 128 Oakbrook Road, Sheffield. S11 7ED.

GET your Video's digitised onto your ST. Phone for details (0324) 493584 weekdays, (0642), 618634 weekends. Ask for Russell.

PROGRAMMING work done in 'C' for MS-DOS. All types of software written for IBM XT/AT and compatibles at very competitive rates. Phone (0565) 51270.

AMIGA clip art for DTP, 12 disks full £2 per disk or £16 for the set, cheque/postal orders to: 432 York Road, Leeds LS9 0HH.

COULD you write a custom start-up for demos, and change existing ones? If you can I'll pay. Details: Garry Daines, 95 Queensway, Barwell, Leics, LE9 8AX.

SOFTWARE exchange service for all home computers and consoles, 50p registration fee. £2 for swap. Send for form: CRB 22 Roman Rd, Bearsden, Glasgow. No SAE required

● ANNOUNCEMENTS

WANTED Games players for charity event. Must be computer mad and live in the south east Essex area. Also must be able to raise £150 (approx age: 16 - 20 years). If interested please phone Neil on (0268) 697123.

ST contacts wanted. Write to Brian Traynor at 6 Pitmilly Road, Drumchapel, Glasgow, G15 7NQ.

WOULD the person who phoned me about the Jean Michel Jarre recording please contact me again A.S.A.P. Thanks, Jason (0773) 824486. Remember I will pay postage.

AMIGA contacts wanted. Phone Faggy on (0977) 559732.

● USER GROUPS

THE Twilight Zone is a new Amiga and C64 User Group. Send S.A.E. for info to T.T.Z., 33 Western Road, Goole, North Humbs, DN14 6QW NOW!.

AMIGA user group starting in Leominster area. All welcome. Swap P.D./Ideas/STE jokes etc. Call Mark on (0568) 5348 . Call me now.

DOES anyone know of an ST User Group in Ilford? Or would anyone like to start one? Please contact Khalid at 01-550 7793 after 6pm.

AMIGA contacts wanted. Send lists or disks (disks get priority). Fast reply. Frank, 3 Carlcroft Place, Collingwood Grange, Cramlington, Northumberland, NE23 6ET.

FASTLINE is a new user group for Sam Coupe owners with a 3.5 inch disc drive. Free membership, new demo's every month. For details send a S.A.E. to 1 Ryelands Place, Kilgetty, Dyfed, SA68 0UX.

NEW Atari ST user group starting up soon in Birmingham area. Interested? Write to Ian, 188 Foden Road, Great Barr, Birmingham, B42 2EJ.

AMIGA contacts wanted for the latest stuff. Send list and disks to Paul, 26 Faulcon Bridge Close, Crabtree Farm Estate, Bulwell, Nottingham, NG6 8DW. No lamers.

IF you're a friendly ST owning person, then why not join us? We are the new Bradford ST user group. Contact Steve: (0535) 273810, evenings.

AMIGA contacts wanted. Send lists & disks to Joel, 15 Rowdon Ave, London, NW10 2AT. Phone 01/081 459 5120. No lamers. Hi to T.N.T. 100% reply.

AMIGA contacts wanted to swap latest stuff. Send list 100% reply. Write to Gordon, 21 Adkins Close, Aylesbury, Bucks.

AMIGA contacts wanted. 100% reply. Battle sims and Shoot em Ups especially. Write to Jeff, 50 Sydenham Avenue, Holywood Road, Belfast, N. Ireland, BT4 2DR. Everybody welcome.

INTERESTED in joining Sent Off Football League. Cash prizes if you win a championship. Send a S.A.E. to Sent Off, Park House, Melville Gardens, Montrose, Angus, DD10 8HG.

AMIGA contacts wanted to swap PD, demos, tips, help with Amiga Basic, etc. Send list now to Hoa, 92 Latimer, Beaconsfield Road, London, SE17 2EW.

ST any good quality cheap printers or monitors considered. Or write to me if you live around South Shields and want to start up a user group. Contact Ian, 24 Essex Gardens, South Shields, Tyne & Wear, NE34 7JQ.

AMIGA contacts wanted for tips, hints, useful progs, etc. Send Lists or disk to JGS, 125d Alexander Street, Coatbridge, ML5 2JH. 100% reply.

AMIGA contacts wanted for possible user groups. 100& reply. Tel: (0905) 426914 or (0905) 428881. Ask for Moz.

64 (Tape) not disk – users club about to start up – going global soon. Trade, Demos, comps: For details S.A.E. to: D. Mason, Ethorpe Hotel, Gerrards Cross, Bucks, SL9 8HY.

ADVENTURE enthusiast seeks contacts to exchange ideas etc for ST and PC games. Mr S Lucas, 47 Longcroft Lane, Cheadle Hulme, Cheshire.

AMIGA Contacts wanted to start FREE beginners club in the south to swap games, cheats, tips etc. Please contact David after school on 0425 279835.

AMIGA Contacts wanted. Write to Simon, 30 Diamond St., Saltburn, Cleveland, TS12 1EB or Call (0287) 24167.

AMIGA contacts wanted 100% reply fast and reliable. All welcome write to: Steve, 4 Stopgate Lane, Aintree, Liverpool L9 6AP.

AMIGA contacts wanted all around the world to swap latest stuff. Write to: Tariq Al-Ali, PO Box 66957, 43760 Bayan, Kuwait. 100% reply. Hi Mad M.

AMIGA contacts wanted for fast reliable new stuff. Send disks and letter to: 36 Friar Road, Brighton, East Sussex BN1 6NH. 100% reply. World wide and local. No lamers. Bye!

AMIGA contacts wanted in the Hull area. Write to A.B.B., 39 Cambeak Close, Bransholme, Hull HU7 4ES. PS What is an ST?

AMIGA contacts wanted to swap good games. 100% reply. Write to 1 Dewlands, Oakley, Bedford MK43 7RW. Hi to Ken in Merseyside.

DOES anyone know of an ST user club in the Wirral/Merseyside area that is open to membership? Please ring 051 678 8519.

DOES anyone know of an ST user group in the Reading / Wokingham area? If so please phone: Matthew by Tel: 0734 788085.

AMIGA SUPERMARKET

TRILOGIC

A500 512K RAM UPGRADE

- LATEST LOW POWER CHIPS
- ON/OFF SWITCH
- EASY TO FIT
- WITH CLOCK & BATTERY ONLY **£69.99**
- LESS CLOCK & BATTERY ONLY £64.99

ANOTHER LOW COST HIGH QUALITY TRILOGIC PRODUCT!

EXTERNAL 3.5" DISK DRIVES

- 880K FORMATTED CAPACITY
- THROUGH POST
- VERY QUIET OPERATION
- SLIMLINE STEEL CASE
- LOW POWER CONSUMPTION
- NEC MECHANISM

3.5" DRIVE WITH ON/OFF SWITCH NOW ONLY .... **£74.99 POST FREE**

HARDWARE

A500 BATMAN PACK **£379.99**
A590 HARD DRIVE **£379.99**
RAM CHIPS FOR A590 TO GIVE UPTO 2 MEGS **£45.00/512K**
PHILIPS CM8833 STEREO COLOUR MONITOR .... **£244.99 FREE CABLE**
PHILIPS 12" MONO MONITOR FOR AMIGA .... **£84.99 FREE CABLE**
STAR LC 10 PRINTER .... **£169.99 FREE CABLE**
STAR LC10 COLOUR PRINTER .... **£214.99 FREE CABLE**
STAR LC24 — 10 24 PIN PRINTER .... **£249.99 FREE CABLE**
CITIZEN 120D PRINTER .... **£139.99 FREE CABLE**
DIGIVIEW GOLD V4.0 .... **£139.95**
PACE LINNET MODEM & CABLE FOR A500 .... **£174.95**
MINIGEN GENLOCK FOR A500 .... **£109.99**
MARCONI TRACKERBALL FOR AMIGA **£54.95**
REPLACEMENT MOUSE + MOUSE HOLDER & MAT **£29.99**

All prices include carriage. Fast courier delivery £5.00 extra (UK mainland only). Free on orders over £500

AMIGA AUDIO DIGITISER

– NEW, CHOOSE MONO OR STEREO VERSION

Both Amiga audio digitisers give superb performance, unsurpassed at the price. No software is supplied, since they are fully compatible with Perfect Sound, Prosound Designer, Audiomaster, and Datel's Prosampler. Sampling rates up to 60KHz are possible depending upon the software. An audio lead is supplied for connecting to the headphone socket or line output of a radio, personal stereo, keyboard etc. Full instructions are included, and the mono version also has an L.E.D. overload indicator. A public domain "Sound Workshop" disk is available which has demo versions of Audiomaster & Perfect Sound etc.

MONO DIGITISER .... **£27.99 POST FREE** STEREO DIGITISER **£37.99**
SOUND WORKSHOP DISK .... **FREE WITH DIGITISER**
AUDIOMASTER II, WHEN PURCHASED WITH DIGITISER .... **ONLY £54.99 SAVE £20.00**

AMIGA MONITOR & PRINTER LEADS

RGB TV & MONITOR LEADS

We have leads to connect all AMIGAS to your TV or colour monitor provided it has an RGB input socket. All leads give a much clearer picture than using the AMIGA MODULATOR, permit ALL 4096 colours to be displayed and include the audio lead (to give stereo with stereo tv's).

ORDER AL 1 FOR TV's WITH 21 PIN EURO (SCART) SOCKET.
FITS PHILIPS, FIDELITY, SONY, GRUNDIG, NORMENEDE, ETC. .... **ONLY £11.99**
ORDER AL 2 FOR FERGUSON TV's WITH 7 or 8 PIN DIN SOCKET.
MODELS MC01 & MC05, ETC. .... **ONLY £11.99**
ORDER AL 4 FOR HITACHI & GRANADA TV's WITH 7 PIN DIN
SOCKET. MODELS CPT1444, ETC. .... **ONLY £11.99**
AMIGA TO MULTISYNC MONITOR (analogue RGB) AL11 .... **£10.99**

MANY OTHER AMIGA MONITOR/TV LEADS LISTED IN OUR FREE CATALOGUE.
OUR LEADS ARE GUARANTEED TO WORK WHERE OTHERS DON'T!
LEADS ALSO AVAILABLE FOR ATARI ST RANGE. PLEASE CONSULT US IF IN DOUBT.

NEW — MONITOR SHARER

SHARE 2 COMPUTERS WITH ONE TV/MONITOR

Plug-in the scart leads from any two computers eg AMIGA & ST or one computer & one VCR, and connect the SHARER to the tv or monitor's scart socket. Just press the switch to instantly select either computer .... **MSWI £15.99**

MOUSE/JOYSTICK SWITCHER

- NO MORE UNPLUGGING MOUSE WHEN JOYSTICK REQUIRED
- EXTENDS THE PORT FOR EASIER ACCESS
- SAVES WEAR & TEAR ON THE MOUSE PORT
- PUSHBUTTON SWITCH CAN BE OPERATED WHEN THE COMPUTER IS ON

NEW COMPACT DESIGN .... **£14.99** *order as DJA1*

AMIGA MINI STEREO AMPLIFIERS

MINIAMP 2 combines a mini stereo power amp with two neat speaker units which connect directly to your AMIGA. They are ideal for use with mono TV's & monitors, & simply plug in for instant stereo sound. You'll be amazed at the difference.
MINIAMP 2 WITH REMOTE VOLUME CONTROL & ALL LEADS **ONLY £19.99**

MINIAMP 4 comprises separate 4 watts per channel high quality mini stereo amplifier with loudspeaker/headphone socket, separate speaker units with 4" twin cone drivers, mains power pack & connecting lead for AMIGA.
CAN BE USED AS 'WALKMAN' BOOSTER & WITH OTHER COMPUTERS
MINIAMP 4 STEREO AMPLIFIER SPEAKER SYSTEM **MA4 £34.99**

NEW — AMIGA MIDI INTERFACES

MIDI INTERFACE 1 FOR A500/2000 OR A1000 .... **MIF1 £29.99**
This has MIDI IN, OUT & THRU sockets.
MIDI INTERFACE 2 FOR A500/2000 OR A1000 .... **MIF2 £34.99**
This has MIDI IN, MIDI OUT, MIDI THRU plus 2 UNIQUE switchable MIDI OUT/THRU SOCKETS to save you having to swap MIDI leads when using more than one MIDI instrument. **FREE MIDI LEAD WITH BOTH INTERFACES**

We also stock Amigas, PCs, Printers, Monitors, Hard Disks, Memory Expansions, Video Digitisers, Selected Software & Books — Phone for our free 20 page catalogue.
Trade enquiries welcome. Please add 75p part postage + packing to orders under £15.00
FREE CATALOGUE WITH ALL ORDERS *EXPRESS DELIVERY £1.99 EXTRA*

TRILOGIC

ENQUIRIES ☎ 0274 · 678062
TRILOGIC Unit 1,
253 New Works Road, Bradford BD12 0QP
Tel 0274-691115
Fax 0274-600150

BARCLAYCARD VISA

· FAST MAIL ORDER SERVICE · PROMPT DESPATCH · ALL PRICES FULLY INCLUSIVE PLUS 10 DAY MONEY BACK GUARANTEE ON ALL ITEMS. PAYMENT BY CASH, CHEQUES PAYABLE TO TRILOGIC BY POSTAL ORDER, ACCESS OR VISA. ADD £2·99 EXTRA FOR EXPORT ORDERS, PAYMENT IN STERLING ONLY PLEASE.

Evesham Micros

ALL PRICES INCLUDE VAT AND DELIVERY

ATARI

All our ST prices include: mouse etc. plus 5 disks of software including 'First Word' wordprocessor, utilities. 'Neochrome' graphics utility, game and demos.

NEW! 520 and 1040 STE

New STE models feature an extended palette of 4096 colours, enhanced PCM stereo sound, an additional two analogue device inputs and TOS 1.6.

520 STE Explorer Pack with 512K RAM, 1Mb Drive £259.00

1040 STE with 1Mb RAM and 1Mb Drive £399.00

520 STE POWER PACK

Amazing value, special ST package from Atari! Includes the very latest 520STE with 1Mb drive, joystick, mouse, user guide, 5 disks of public domain software, plus an incredible selection of chart-topping software with a total RRP of over £500! Software included is:

R-Type
Afterburner
Double Dragon
Super Hangon
Space Harrier
Overlander
Pacmania
Starglider
Super Huey
Eliminator
Predator
Bombjack
Out Run
Bombuzal
Xenon
Gauntlet II
Black Lamp
Starray
Nebulus
Stargoose
First Music
First Basic
Organiser

All for only **£339.00** Inc VAT & delivery

520/1040 STE Memory Upgrade modules

Easy to fit plug-in SIMMS modules with fitting instructions.
Please note - you cannot mix RAM module types eg. (0.5Mb with 1Mb)

0.5Mb module (upgrades 520 STE to 1Mb)	£79.00
1Mb module (upgrades1040 STE to 2Mb)	£115.00
2Mb module (upgrades 1040 STE to 3Mb)	£230.00
4Mb module (upgrades 520 to 4Mb with 0.5Mb removed)	£460.00

520 STE Explorer Pack latest version with 1Mb drive, 512K RAM	£259.00
1040 STE includes 1Mb drive, 1Mb RAM, with built-in TV modulator	£399.00
Mega ST1 with monochrome monitor	£599.00
Mega ST2 with monochrome monitor	£849.00
Mega ST4 with monochrome monitor	£1099.00
SM124 monochrome monitor .... £119.00 bought with an ST	£110.00
SC1224 colour monitor	£279.00
Philips CM8833 14" colour monitor (stereo sound) c/w ST cable	£249.00
Vidi-ST 16-tone video frame grabber inc.digitising software	£95.00
Vortex 40Mb HDplus Hard Disk	£499.00
5.25" External Drive 360/720K 40/80 track switchable	£99.00

Amstrad PC1512/1640/2086

We offer a wide choice of Amstrad PCs with many upgrade options. For the hard disk option, check our 'Evesham Upgraded Models'. Only the best will do - so we normally upgrade by means of a Western Digital Filecard, which includes XTree & SpeedRead software; however on single drive 1512/1640 models we can offer internal installations at the same price (leaving more expansion room but no upgrade opportunity for a 2nd floppy drive). Prices in lighter type exclude VAT.

Free with 1512 models... Ability and 4 US Gold Games

	SD	DD	AMS H.D.	SD 21MEG	DD 21MEG	SD 32MEG	SD 32MEG
				EVESHAM UPGRADED MODELS			
MONO 1512	384.35 **442.00**	477.39 **549.00**	N/A **N/A**	580.00 **667.00**	673.04 **774.00**	592.17 **681.00**	685.22 **788.00**
COLOUR 1512	494.78 **569.00**	555.65 **639.00**	N/A **N/A**	690.43 **794.00**	751.30 **864.00**	702.61 **808.00**	763.48 **878.00**
MONO 1640	474.78 **546.00**	555.65 **639.00**	738.26 **849.00**	670.43 **771.00**	751.30 **864.00**	682.61 **785.00**	763.48 **878.00**
CGA (COLOUR) 1640	581.74 **669.00**	651.30 **749.00**	825.22 **949.00**	777.39 **894.00**	846.96 **974.00**	789.57 **908.00**	859.13 **988.00**
EGA (ECD) 1640	677.39 **779.00**	738.26 **849.00**	938.26 **1079.00**	873.04 **1004.00**	933.91 **1074.00**	885.22 **1018.00**	946.09 **1088.00**
2086 MONO	564.35 **649.00**	633.91 **729.00**	813.04 **935.00**	760.00 **874.00**	829.57 **954.00**	772.17 **888.00**	841.74 **968.00**
2086 CD	656.52 **755.00**	726.09 **835.00**	903.48 **1039.00**	852.17 **980.00**	921.74 **1060.00**	864.35 **994.00**	933.91 **1074.00**
2086 12" HRCD	746.96 **859.00**	813.04 **935.00**	995.65 **1145.00**	942.61 **1084.00**	1008.70 **1160.00**	954.78 **1098.00**	1020.87 **1174.00**
2086 14" HRCD	833.91 **959.00**	903.48 **1039.00**	1086.09 **1249.00**	1029.57 **1184.00**	1099.13 **1264.00**	1033.04 **1198.00**	1111.30 **1278.00**

12 MONTHS ON-SITE MAINTENANCE PROVIDED WITH ALL MODELS OF PC1512, 1640 AND 2086 FREE OF CHARGE !

upgrades / accessories

1512 memory upgrade to 640K	£39.95
Maths Co-processor 8087-2	£129.00
NEC V30 (8086 replacement)	£24.95
Archive XL 40Mb Ext. tape streamer	£379.00
Amstrad Modem Card V21/23	£99.00
Communicate Fax Card SR	£199.00
Enhancer 101 replacement keyboard	£74.95
3.5" drive (720K) for SD models	£79.95
PC2000 series compatible 5.25" (360K) external drive	£84.95
Genius GM6000 Mouse package	£34.95
Konix PC Joystick & Controller Card	£28.95

Amstrad PPCs

Low prices on all portable PCs - especially twin drive models
prices in brackets are excluding VAT

PPC512S	(£373.04)	£429.00
PPC512D	(£433.91)	£499.00
PPC640S	(£477.39)	£549.00
PPC640D	(£546.96)	£629.00

Low price External 3,5" floppy drive (720K), suits any Amstrad PC 1512 1640 inc. DD and HD models, uses no expansion slots £99.95

AMIGA 500 LOW COST RAM UPGRADE

ONLY £55.00 inc.VAT & delivery

512K RAM/CLOCK EXPANSION FEATURES :

☆ Direct replacement for the A501 expansion
☆ Convenient On / Off Memory Switch
☆ Auto-recharging battery backed Real-time Clock
☆ Compact unit size : Ultra-neat design
☆ Uses only 4 D-RAMs for High Reliability
☆ Low power consumption

RAM expansion without clock, only ... £49.00

Amiga & ST 3.5" Drives

★ Very Quiet
★ Slimline Styling
★ Fully Compatible
★ Top quality Teac / Citizen drive mechanism
★ On / Off switch for Amiga
★ External plug-in PSU for ST
★ Throughport for Amiga
★ 1Mb unformatted capacity

Fully compatible, high quality 3.5" external drives for the ST and Amiga

Amiga version only £69.95

Atari ST version only £74.95

Prices include VAT & delivery

Western Digital Filecards

Upgrading your PC to hard disk? Look no further, we offer the best prices on top quality hardcards. Thorough documentation supplied, low power consumption, with free XTree file management software and Speedread. For Amstrad PC users we supply hardcards tested and formatted, with our simple software installation procedure. The best packages available!

21 MB...£225.00 32 MB...£239.00 41 MB...£289.00

3.5" disks

10...£ 9.95 in plastic case £11.95
25...£22.95 in 40 cap case £29.95
Fully guaranteed double sided media

5.25" disks

in 50 cap box £18.95
25...£11.95 in 100 cap box £20.95
Fully guaranteed double sided media

PRINTERS

All prices include VAT, delivery and cable

star

We use and recommend Star printers since they do offer an unbeatable combination of features, print quality, reliability and value. Get it right with a Star at our special, all in, prices. We can provide on-site maintenance contracts for only £5.75 extra.

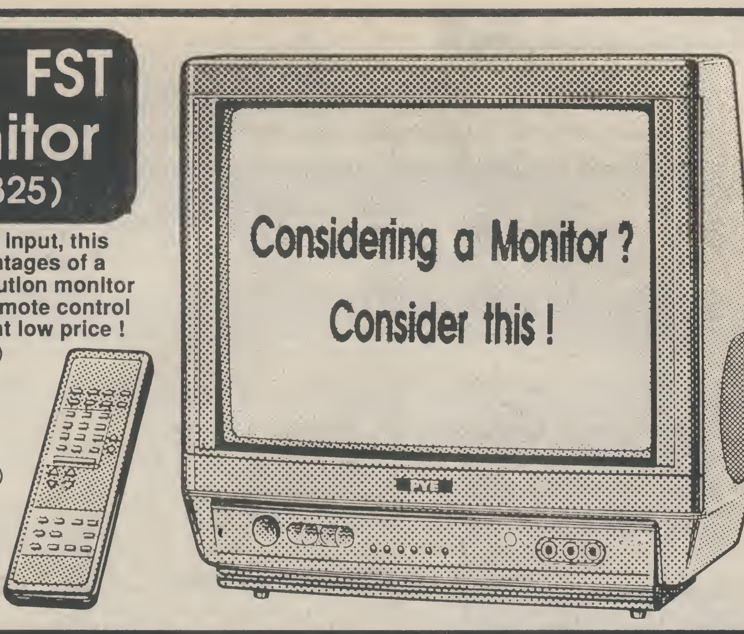
Star LC24-10 feature-packed multifont 24 pin printer, amazing low price	**£239.00**
Star LC10 best-selling 144/36cps printer, 4 NLQ fonts, inc.2 extra ribbons free	£169.00
Star LC10 7-colour version of above printer, inc.2 extra black ribbons	£215.00
Star LC15 wide carriage version of LC10	£329.00
Star LC24-15 wide carriage version of LC24-10	£409.00
Star FR-10 new Professional 9pin 300/76 cps, 31K buffer, 16 NLQ fonts, EE-PROM configuration memory and 12 months on-site maintenance	£399.00
Star FR-15 9pin as FR10, wide carriage version	£499.00
Star XB24-10 Professional 24pin: 27K buffer, 4 SLQ & 25 LQ fonts with EE-PROM configuration memory and 12 months on-site maintenance	£499.00
Star XB24-15 wide carriage version of XB24-10, with 41K buffer	£649.00
NEC P2+ budget 24pin	£299.00
Olivetti DM100S Super 9 pin 200/30 cps, inc.1 year on-site maintenance!	**£129.95**
Amstrad DMP3160/3250DI good value 10" 9pin	£169.00
Panasonic KXP1081 reliable budget 10" printer 120/24 cps	£159.00
Panasonic KXP1180 super new 9pin with over 3400 typestyles, 11" carriage	£179.00
Panasonic KXP1124 good quality 11" multifont 24pin printer	£269.00
Panasonic KXP1624 wide carriage version of KXP1124	£399.00
Epson LX800 popular 10" 180/25 cps	£159.00
Epson LQ550 (was LQ500) good 24pin printer 150/50 cps	£349.00
Mannesmann Tally MT-81 130/24 cps	£149.00

PYE 15" FST TV/Monitor
(MODEL 2325)

With its dedicated monitor input, this model combines the advantages of a high quality medium resolution monitor with the convenience of remote control Teletext TV - at an excellent low price !

- ✓ Suits ST or Amiga (cable supplied)
- ✓ Teletext facilities
- ✓ Full infra-red remote control
- ✓ SCART Input/Output Connector
- ✓ Audio/Composite Video inputs
- ✓ 40 TV tuner presets
- ✓ Headphone private listening jack
- ✓ External aerial input (loop supplied)

£249.00
Includes VAT, delivery and computer connection lead


Considering a Monitor ?
Consider this !
PYE

ATARI
ABC-286

Prices include Olivetti DM100S printer and Logotron '8-in-1' integrated software package !

- ☆ 80286 Processor with 8 Mhz clock speed
- ☆ 640K RAM standard, expandable to 1 Mb
- ☆ 3 AT / XT compatible Expansion slots
- ☆ 1 RS232 Serial and 1 Parallel ports
- ☆ Disk controller supports 2 floppy & 2 hard drives
- ☆ One 3.5" (720K) floppy drive and a 30Mb hard disk drive fitted as standard
- ☆ Socket for 80287-8 Maths Co-Processor
- ☆ Video graphics adapter supports EGA, CGA, MDA and Hercules, with digital video port
- ☆ 102-key DIN spec. AT-Protocol keyboard
- ☆ Supplied with MS-DOS 3.3 and GW-BASIC

ABC-286 S.D./30Mb with Mono Monitor .... £ 999.00

ABC-286 S.D./30Mb with EGA Monitor £1149.00

****

Optional 5.25" 1.2Mb Internally fitted floppy drive available £119.00

Prices include VAT/Delivery

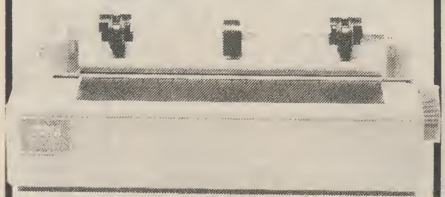
AMIGA SPECIAL DEALS

Amiga 500 512K Batpack includes 4 titles and TV modulator **£359.00**
Amiga 500 1Mb Batpack features our 1Mb Memory Upgrade fitted **£399.00**
Amiga 500 Batpack with Drive includes 2nd 3.5" External Drive **£419.00**
Amiga 500 1Mb Batpack with Drive features our 1Mb Memory Upgrade *plus* 2nd 3.5" External Drive **£459.00**

Amiga B2000 Pack includes XT Bridge Board and 1084D Monitor **£1199.00**
Amiga B2000 32Mb Pack deal as above; includes 32Mb Filecard fitted ... **£1438.00**

External 5.25" 40/80 track switchable drive	£114.95	MiniGEN Genlock Adapter	£95.00
Omega Projects MIDI interface	£29.95	Philips CM8833 colour monitor inc.cable	£249.00
Vortex System 2000 40Mb Hard Disk	£499.00	Contriver Hi-Res replacement Mouse pack	£22.95
Vidi-Amiga	£99.00	Amiga 500 dust cover	£4.95

OLIVETTI DM100S



Top value, high performing 9-pin dot matrix printer

- ○ 200cps draft, 30cps NLQ print speed
- ○ Pica, Elite and Condensed printing
- ○ Standard Centronics Parallel interface
- ○ Friction and Tractor feed
- ○ Optional auto cut sheet feeder available

UNBELIEVABLE PRICE !

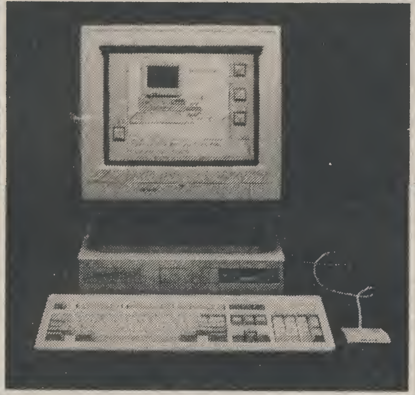
£129.95

Cut sheet feeder also available for only £79.95

Prices include VAT, delivery and 12 months on-site maintenance!

Olivetti PCS

From the No.1 manufacturer of PCs in Europe, the PCS series machines offer top quality construction and high performance ratings. *Challenging* prices include VAT, Delivery and 12 months On-site maintenance.



PCS 86

	12"MONO	14"COLOUR
SINGLE FD	£688.85	£918.85
TWIN FD	£803.85	£1033.85
20MB HD	£1033.85	£1263.85

- ◆ NEC-V30 microprocessor 10Mhz clock speed, 0 wait states
- ◆ 640K RAM standard, upgradeable to 2.5Mb on motherboard
- ◆ Single or Double 3.5" floppy drives with 720K formatted capacity
- ◆ Optional 20Mb Hard Drive version also available, with 27ms access time
- ◆ 3 Full size 8-bit XT-compatible expansion slots
- ◆ Socket for 8087 maths co-processor
- ◆ 1 x RS232 Serial interface and 1 x Centronics Parallel interface
- ◆ VGA compatible (OVC) display controller fitted standard
- ◆ VGA monitor supplied: 14" Colour or 12" Flat-screen Mono. (dot pitch 0.39mm)
- ◆ Mini-din PS/2 Interface sockets for keybaord and mouse
- ◆ 101/102 key AT-layout PS/2 compatible keyboard
- ◆ Optional 'Genius GM-U2' hi-res mouse available for only £49.95 inc.VAT
- ◆ Optional external 5.25" drive also available - phone to check availability.
- ◆ Plus: 'Logotron 8-in-1 Professional' Integrated package, free with all models.

PCS 286

	12"MONO	14"COLOUR
TWIN FD	£1148.85	£1378.85
20MB HD	£1263.85	£1493.85
40MB HD	£1378.85	£1608.85

FREE WITH ANY PCS 286 - OLIVETTI DM100S PRINTER AND 'LOGOTRON EIGHT-IN-ONE PROFESSIONAL' !

- ◆ Intel 80286 microprocessor 12MHz clock speed, 1 wait states
- ◆ 1Mb RAM standard, upgradeable to 4Mb on motherboard
- ◆ Single or Twin 3.5" floppy drives with 1.44Mb formatted capacity
- ◆ Optional Hard Drive versions: 20Mb (27ms access time) or 40Mb (29ms)
- ◆ 3 Full size expansion slots; 1 x 8bit and 2 x 16bit XT/AT-compatible
- ◆ Socket for 80287 maths co-processor
- ◆ 1 x RS232 Serial interface and 1 x Centronics Parallel interface
- ◆ VGA monitor supplied: 14" Colour or 12" Flat-screen Mono. (dot pitch 0.39mm)
- ◆ Optional 'Genius GM-U2' hi-res mouse available for only £49.95 inc.VAT
- ◆ On-Board RAM upgrades now available - please phone for details
- ◆ We can substitute another printer of your choice with £129.95 allowance.

OLIVETTI PG-306

High performance HP-Laserjet compatible laserprinter

- ☐ 75 to 300dpi graphics resolution
- ☐ 6 pages/min. (A4/B5/letter/legal)
- ☐ 8 resident fonts including Courier
- ☐ 512K RAM (upgradeable)
- ☐ Standard Centronics interface
- ☐ Expansion possibilities include PostScript board & serial interface
- ☐ Toner cartridge & drum supplied
- ☐ 12 months on-site maintenance

£1144.25
INC.VAT, DELIVERY AND 12 MONTHS ON-SITE MAINTENANCE

How to order from Evesham Micros

VISA
Access

MAIL ORDER SALES :
☎ 0386-765500

Technical Support (Mon-Fri) :
0386-40303

All prices include VAT and delivery. Express Courier delivery £5.00 extra.

✉ *Send cheque, Postal Order or ACCESS/VISA card details*

Govt., educ. & PLC orders welcome
Same day despatch whenever possible
All products covered by 1 year guarantee
All goods subject to availability, E.&O.E.

Evesham Micros Ltd
UNIT 9 ST RICHARDS RD
EVESHAM
WORCS WR11 6XJ
✆ 0386-765500
fax 0386-765354

Retail outlets at :
1762 Pershore Road, Cotteridge, Birmingham B30 3BH Tel: 021 458 4564
63 Bridge Street, Evesham, Worcs WR11 4SF Tel: 0386 765180
5 Glisson Road, Cambridge CB1 2HA Tel: 0223 323898

AMIGA contacts wanted. User Group, demo's etc. Cheats disks. List sent. Send S.A.E. to Steve Hayward, 29 Effra Road, London SW2 1BY. 100%.

AMIGA contacts wanted: Write to Danny, 5 Beckside North, Beverley, North Humberside HU17 0PR. Send disk or letter, 100% reply posted next day. Also Amiga cheats disk for sale £2 each.

AMIGA contacts wanted to swap latest stuff, must be fast 100% reply, send list etc. R Hadden, 17 The Rise, Norhawram, Halifax, West York. or tel (0422) 206614.

AMIGA newcomer, contacts wanted, usual stuff – swap games, tips etc. Where do I get cheap disks? Write to Kev: 20 Cypress Avenue, Ellesmere Port, Cheshire LG6 2UU.

AMIGA owners in Nottinghamshire! Please mail details to help create a local user network. S.A.E appreciated. Replies guaranteed. Be patient! Mansfield A500, 4 Poplar Street, Mansfield Woodhouse, Mansfield, Notts NG19 9LB.

AMIGA owners in South East (Essex) wanted to start free! Club, with regular meetings. Write now to Neil, 53 St Marks Road, Canvey Island, Essex SS8 9NJ.

AMIGA users contact Andy at 80 Central Drive, B'Pool, Lancs, FY1 5QD, England to get demos, utils, tips for the Amiga!!!

AMIGA users group. Every Thursday night in South East London. All welcome, beginners, male or female, also wanted. Programmer to help with club. Contact: Alan, 01-708 0146.

ANY computer users who use Klaver Music Notation interested in forming/joining a user group; ring Mike on 01-520 5223.

BBC contacts wanted to exchange software, hints, tips etc. All letters replied to, write to K. Scotney, 17 Cromer Avenue, Burley, Lancs BB10 3HA.

BOURNEMOUTH and POOLE Atari User Group. Support for 8 Bit and ST. Monthly meetings. Membership £8.00. Quarterly Newsletter 8i16, £3.80 four issues. Details write to: 248 Wimborne Road, Oakdale, Poole, Dorset.

CALLING all hackers anyone interested in setting up a society write to me, Whizz Kidd's and hardware freaks welcome, all letters answered and treated in strictest confidence.

COMPUTER Student Contacts Wanted. Write to A. M. Drewett, 37 Longdon Ave, Aylesbury, Bucks HP21 9UW.

DISK magazine for Amiga freaks. Send Submission on disk to: Arthur Wyatt, 68 Shefford Road, Meppershall, Shefford, Beds. Submission disks get returned with magazine on, blanks returned as blanks.

FAST Amiga contacts wanted, repeat fast! Send Discs or Letters to: Andy, 35 St Annes Drive, Aylestone, Leicester LE2 8HU.

GWYNEDD, N. WALES. ST User Group. I want to get in touch with all local ST Users to form a new group. Contact S. Rammerling, Clogwyn Plas Gwyn, Pwllheli, Gwynedd, N. Wales, LLS 36UA.

HYPERPAD – interested in forming a user group? SAE to Dave Langstaff, 78 Harrison Road, Swaythling, Southampton, SD2 37J.

IF You want to spread your groups in Asia. Send your latest + your demos to: Tariq, P.O. Box 3581 Safat, 13036, Kuwait. 100% reply, Amiga Only. Also will swap spot.

INTERESTED in joining a Kick Off League in London? With trophies for winners? Contact Ray at 30 Windsor Crescent, Wembley Park, Middlesex, HA9 9AW or ring 01-904 0555 between 6pm-11pm.

IS there a Clipper/DBase 3+ User Group in London? I will be grateful for any details. Guy Ellis, 23 Sussex St., Pimlico, London, SW1V 4RR.

ISLE OF WIGHT PC User Group. Anybody wishing to join should contact I.O.W. 0983 614277/614649 and ask for Sean.

JOIN CMUG the best Christian Micro Users Group. S.A.E. please to CMUG, 15 Howard Street, Gloucester GL1 4US.

JOIN the first free national ST user club. Register now! Make the most of your ST. David Dean, 5 Alpine Drive, Hednesford, Cannock, Staffs, WJ12 5NL.

KENT youth computer group at the Bowen Youth Centre, Kingsnorth Road, Ashford, Kent. All makes of computer. Write to Kris for details.

LAMER? Want to swap software, tips, demos and form a Lamers against Lamers Society? Then contact, Faisal Patel, 73 Track Road, Batley, W. Yorks, WF17 7AB.

LIST the low income ST User Group for students and the unemployed send two blank disks to Marcus, 9 Days Green, Chapel Street Mary, Ipswich, Suffolk IP9 2HZ for details.

NINTENDO contacts wanted for swaps and setting up of User Group! Write to: Ashley Middleton, Amberley, Park Drive, Little Aston Park, Sutton Coldfield, B74 27A, 100% reply.

PC200 user I think it's OK! Did you buy the other one? What do you think of it? Give me a ring 0432 266451 Neil.

PCW Users Interested in P.D. send S.A.E. to: PCW-File, 18 Sunbrow,Haslemere, Surrey GU27 2QP. The PCW-File is on Boog BBS 0252 626233, 24hrs, V21/V23. No Fees.

READ this now! Amiga contacts wanted to start a group or just swap stuff. Contact Phil at 52 Altofts Lodge, Drive Normanton, West Yorks WF6 2LD. No lamers!!!

SCOTTISH QL Users Group. Your chance to meet other QL and Thor users north of the border. Contact Alan Pemberton, 65 Lingerwood Road, Newtongrange, Midlothian, Scotland.

SHARP users. Sharp users club, any model. The only one left for full support. Andrew Ferguson, 11 Harcourt Close, Henley-on-Thames, Oxon, RG9 1UZ. (0491) 514850 evenings please.

SOLIHULL, West Midlands Atari ST User Group meet second Tuesday of every month, other machines also accepted especially ARC's and even Amiga's. Phone 0564 770132 after 6.30 ask for Richard.

SPECTRUM Owners Join Indug, the World's largest Spectrum Users Group. Monthly Magazine, Discounts, Support + much more. Send A5 S.A.E. for full details to INDUG, 34 Bourton Road, Gloucester, GL4 0LE.

SPECTRUM User Group monthly magazine hints, tips, pokes & demos. For full details send S.A.E. to Rob Tronics, 61 Doyle Road, Bolton BL3 4SA.

ST contacts wanted if into Agtomation or any other, then write or phone 110% reply, almost. Lee Edwards, 24 Topllan Road, Glan Conwy Clwyd, LL28 5NP tel: 0492 580447.

ST users in Bradford, I'm starting a users group, just contact Dave on: 614945 and get the most out of your ST. NO FEES!!

TAKE advantage of the free helpline service, get in touch with other C-64 users, etc.... Join 'Crystal Unicorn'. No fee's!!! Adam, 'Redways', Harps Hall Road, West Walton, Wisbech, Cambs. PE14 7DJ.

THE Computer Information Club. A Club for PCW, PC, CPC, Spec+ and Atari, producing a Newsletter with hints, tips and discover software. Contact The Editor, 345 Western Way, Letchworth, Herts.

ST user: Help!, I'm Australian and have just bought an ST (used to own a C64 in Oz) Anyway, I am looking for good contacts and also anyone in Bradford interested in starting a users group. Contact David Marshall, 5 Highfield Road, Five Lane Ends, Bradford, W.Yorks.

TI99/4A User Group. Quarterly Mag, software Libraries. Membership Secretary: Peter Walker, 24 Bacons Drive, Cuffley, Herts EN6 4DU. TI99/4A lives on yet!!

● HELP OFFERED

HELP available for "Future Wars" and "Manhunter New York". Help on Phone or printed solutions available. Phone: (0992) 716149 after 6pm, ask for Kevin.

HELP offered on Dungeon Master and Chaos Strikes Back. Have finished both. Phone 0222 567596 and ask for Adrian.

NEED to store disk details? Send £3.00 to receive C.A.T. which will store up to 100 disks in each filename given. Written in machine code. Phone 0424 714116.

67 pokes for the Atari ST. Only £2 and S.A.E. (Cheque or PO) to Scott Tompson, 11 Pollards Hill East, Norbury, SW16 4UX.

NEED some software? Got a CPC? Let me write it for you. Simon, 6 Ramsgate Road, Reddish, Stockport, SK5 6TN. Don't delay write today.

HELP offered on serious topics. Music system contacts wanted. Ring (061 799) 8504 after 6pm weekdays or anytime Sunday.

"DUNGEON Master", any problem, any level. Completed 7 times! ST/Amiga. Will assist any way I can. Please phone (most evenings 7-10pm) (Weekends) Mike: 0743 249094. (Also SSI's – "Rings of Zilfin" and "Sword of Sodan").

AMIGA contacts wanted. Any experience level. Workbench/CLI etc, help offered if needed. Keith Lee, Security Squadron, RAF Marham, Kings Lynn, Norfolk, PE33 9NP. 100% fast replies.

ANYONE with PC hardware/software compatibility problems or having trouble deciding which PC compatible to buy. Call Paul on 061-962 7934, evenings. Completely free service!

BEEB help offered, including BCPL Basic and machine code. Write to Owen Astley, Dunelm, Durham Moor, Durham City, DH1 5EU. No SAE, no reply

COMPUTER freak offers help with any BBC B problems, however complex, also on use of DEC VAX 8800 in DCL, Pascal, ADA. S.A.E. to T.F.T., 5 Riversdale, Gilsland, Cumbria. Also 6502 work undertaken.

DO you need programs written on the Amstrad CPC range? Write to me now! Keith Grimsditch, 12 Reddish Vale Road, Reddish, Stockport, SY5 7HE. The sooner the better!

HELP given on Indy Jones the Adventure, also Dungeon Master. Please phone Paul on 0222 567596. Hi to the Pompey Pirates keep up the good work.

I can help with spares for Amstrad Commodore Sinclair computers, also TV and Video recorders. Can anyone help new Amiga operator? Ring Paul on 0332 760353.

MIMI 802 help! Erased system disc please phone 0737 823498 ask for Stupid John.

SOMEONE who can video digitise photos, mags etc........ will gladly sound sample anything they want done – write now! To: Neil Mansell, 53 St Marks Road, Canvey Island, Essex, S58 9NJ – don't delay!

STUDENT offers help with all aspects of MS-DOS, including Batch Files and Pipes/Filters. Send Query to: N Stubbs, 6 Lindrum Ave, Lyme Green, Macclesfield, SK11 0LG

TO all Pascal programmers: If you have any problems or just want to write something. Send me a letter and I will try to help you! To: Sioe-Lin Kwik, Richmond College, Queensroad, Richmond, Surrey, TW10 6JP.

TO PCW beginners. Locoscript, Newsdesk International. SAE to: John Peters, 299 Southway Drive, Southway, Plymouth, Devon, PLL 6QN. Share a problem, find an answer!

WANT help with any Amiga Software? Contact Pete, 15 Milford Close, Tonteg, Mid Glam, S. Wales, CF38 1HG.

● GOODS WANTED

1541 manual wanted. Also any software for Commodore Plus/4. Steve Rogers, 6, Bakers Park, Holne, Newton Abbot, Devon TQ13 7SN.

ACTION Replay Enhancement disk C64 one that covers over 90 titles will pay original price of disk if in good condition. Tel: Grimsby (0472) 73881.

AMATEUR music maker needs disk drive for MSX computer. Yamaha CX5M. Would like FD-03 drive with FD-051 cable and sys/com files. Phone (0483) 502936 evenings.

AMIGA 2nd Drive or half meg wanted. Write Jon Gajos, 17 Dounehill, Jedburgh, Rox, TD8 6LJ. Must be cheap! Will pay delivery costs.

AMIGA A500 wanted, with accessories and some software if possible. Will pay around £250 depending on what comes with it. Ring Bradford (0274) 635212.

AMIGA wanted. Must be cheap no extras necc. Must have mouse & modulator only. Write: Paul Rennilson, Netherwells, Nr. Jedburgh, Rox, TD8 6QU. Phone (0835) 62229.

AN Atari XC12 data recorder in P.W.O. for use with an Atari 800XL. Reasonable price paid. Contact: Gerard Griffin, 11 Carraig lia, Shannon, Co.Clare, Ireland.

ANYTHING for ORIC Atmos; eg. disk drive with system disks, 5.25-inch drive interface, old magazines with ORIC related articles, books, software. Norma, (0787) 61615 (NW Essex).

APPLE III computer wanted urgently with or without hard disc. Tel (0623) 441481.

ATARI XE Games on cassette wanted contact: Andrew 1 Eastbrook Ave, Dagenham, Essex, RM10 7UL.

BOOKS wanted: ST logo users guide will pay £8 starting forth 2nd edition (Brodie) will pay £12 or swap for ST S/W (0432) 761086 John.

BUBBLE BOBBLE wanted for Amiga, Robocop and a good copier. Tel: 01-390 2068 evenings.

CALAMUS instruction so that I can use the Demo. I will pay for postage or photocopies. Please help me. Phone Jim on (0232) 794812.

APPLE III computer wanted urgently with or without hard disc. Tel (0623) 441481.

SALE ★ SALE ★ SALE ★ SALE

MEGA DISCOUNT!

THE BEST QUALITY 5 1/4" DISKS EVER SOLD BY US - NOW EVEN LOWER PRICES!

5.25" Disk and Box Offers

10	5 1/4" Double Sided Double Density 96TPI Disks with FREE storage box	**£9.95**
30	5 1/4" Double Sided Double Density 96TPI Disks with FREE storage box	**£13.95**
50	5 1/4" Double Sided Double Density 96TPI Disks with FREE storage box	**£16.95**
70	5 1/4" Double Sided Double Density 96TPI Disks with FREE storage box	**£22.95**
90	5 1/4" Double Sided Double Density 96TPI Disks with FREE storage box	**£27.75**
100	5 1/4" Double Sided Double Density 96TPI Disks with FREE storage box	**£29.95**

You can choose any size or type of disk box to go with your disks completely FREE!

All our disks are 100% certified and error free. Each disk comes with user labels and comes with our lifetime guarantee

NOW EVEN LOWER PRICES ON OUR TOP SELLING LINES!

3.5" Disk and Box Offers

20	3 1/2" Double Sided Double Density Top Quality Disks with FREE Storage Box	**£16.95**
30	3 1/2" Double Sided Double Density Top Quality Disks with FREE Storage Box	**£19.95**
40	3 1/2" Double Sided Double Density Top Quality Disks with FREE Storage Box	**£25.95**
50	3 1/2" Double Sided Double Density Top Quality Disks with FREE Storage Box	**£29.95**
60	3 1/2" Double Sided Double Density Top Quality Disks with FREE Storage Box	**£34.95**
70	3 1/2" Double Sided Double Density Top Quality Disks with FREE Storage Box	**£39.95**
80	3 1/2" Double Sided Double Density Top Quality Disks with FREE Storage Box	**£44.95**
90	3 1/2" Double Sided Double Density Top Quality Disks with FREE Storage Box	**£49.95**
100	3 1/2" Double Sided Double Density Top Quality Disks with FREE Storage Box	**£54.95**

You can choose any size or type of disk box to go with your top quality disks completely FREE! All our disks come complete with labels and our lifetime replacement guarantee.

THE HIGH DENSITY DISK AND BOX OFFER!

ALL DISKS SUPPLIED ARE TOP QUALITY, 100% ERROR FREE AND SUPPLIED WITH LABELS. THE BEST DISKS AT THE BEST PRICE!

QTY	DESCRIPTION	SIZE 51/4"	31/2"
10	High density disks with free disk box	£13.95	£17.95
25	High density disks with free disk box	£19.95	£34.95
50	High density disks with free disk box	£34.95	£59.95
75	High density disks with free disk box	£49.95	£74.95
100	High density disks with free disk box	£59.95	£109.95

You can choose any storage box to go with your disks FREE from our large range

BRANDED 31/2 DISKS

3M
SONY
VERBATIM
KODAK
DYSAN

ONLY £12.95 PER BOX OF 10

WE ALSO SUPPLY PRINTER RIBBONS P.O.A

NO MIN ORDER

DISK STORAGE BOXES

31/2" 10 Capacity*	£2.49
31/2" 40 Capacity	£5.95
31/2" 80 Capacity	£7.95
51/4" 10 Capacity*	£2.49
51/4" 60 Capacity	£6.25
51/4" 80 Capacity*	£6.95
51/4"100 Capacity	£7.49
51/4" 120 Capacity	£7.95

ALL BOXES COME WITH KEYS AND DIVIDERS EXCEPT *

BARGAINS

5 1/4x80 Cap non lock disk box	£6.59
5 1/4x10 Cap library case	£1.15
Atari ST replacement mice with mat and bracket	£24.95
10 Cap disk rack with desk tidy	£4.95
80 Col wire printer stand	£6.95
180E Video tapes 3 for	£6.95

ACCESSORIES

Mouse mats (boxed)	£3.49
Mouse brackets	£3.49
4 player cables Amiga/Atari	£3.95
Atari J/S - mouse ext. cable	£3.95
Cleaning kits 3" - 31/2" - 51/4"	£2.95
Thingi Copy Holders	£4.95
Computer labels per roll of 1000	£9.95
Listing Paper 11x9 1/2 60gsm box of 2000	£15.90

FREE CAR PHONE WITH EVERY ORDER OVER £100.00

Access

Same day despatch

VISA

All prices include VAT and Track Back delivery - for overnight please add £5 per order

* Subject to fitting by Phonetech Communications, Peterborough.

E & OE Prices correct at time of going to press.

0262 679640 ☎

F.M. Computer Supplies

**Lancaster House,
Lancaster Road, Carnaby Industrial Estate,
Bridlington, N. Humberside. YO15 3QY.
Fax: 0262 602620**

SALE ★ SALE ★ SALE ★ SALE

HAT Software

New!! Learning to Type
A typing tutor for the young and not so young. Ladies, do you want to return to the modern office but are unsure about your keyboard skills? Brush them up at home. The kids can enjoy the "Shoot 'em up" game to improve their skills and speeds.

Only £14.95, or direct from us at £15.45 inc P & P.

Also JIGSPELL, the spelling support program, FIRST PAINT and STAGE 2, our well established graphics packages, and many more. Send for our full list.

21, Wyle Cap, Shrewsbury, SY1 1XB
Tel: 0743 231763

AMIABLE PUBLIC DOMAIN

105 Denmark Square, Aldershot, Hampshire, GU12 4TP. Tel: 0252-23738

FOR AMIGAS

Over 600 disks, virus free, all The Popular collections from less than £2.00 per disk.
Send £1.00 or blank disk and return postage & packaging for disk catalogue & virus killer.

FOR AMIGAS

Cheque and postal orders to D.Burns.

ALL COMPUTER HARDWARE AND SOFTWARE WANTED FOR CASH OR EXCHANGE

NOTHING REFUSED!!

01 727 0424

COMPUTER REPAIR SPECIALIST

TEL 0909 487820

8 bit computer repairs
£15.00p labour + cost of parts

SAM COUPE IN STOCK

C64 POWER SUPPLIES......20.00
SPECTRUM + POWER SUPPLIES...10.00

P&J ENTERPRISES
UNIT 1 CANAL TERRACE
WORKSOP...NOTTS..S80 2DF

MEMORY UPGRADES

Component Resources Limited

ATTENTION!
ATARI 520 STE USERS

Your 520 STE comes with 4 RAM card slots, two already fitted providing 1/2 Meg of memory. We can now offer you additional RAM cards, together with simple to follow instructions, to increase memory up to 4 MEGS

2 x (256K) RAM CARDS FOR 1 MEG	£60.00
2 x (1 MEG) RAM CARD FOR 2 MEG	£175.00
4 x (1 MEG) RAM CARD FOR 4 MEG	£255.00

CO-PROCESSORS	Price £
8087-8MHz	82.00
8087-10MHz	105.00
80287-8MHz	140.00
80287-10MHz	155.00
80387-16MHz	240.00
80387-20MHz	280.00
80387-25MHz	349.00

SPECIAL
Upgrade your AMSTRAD 1512 to 640K £23.50
Including Instructions

Send cheque/money order to:-
Component Resources Ltd.,
37A High Street, Offord D'Arcy,
HUNTINGDON, Cambs. PE18 9RF

ALL PRICES EXCLUDE VAT
ADD £1.50 Pack & Post
Allow 10 days for Delivery
Tel: 0480 812220 Fax: 0480 810020

NEW! WORLDS FIRST POCKET PC

Atari Portfolio Pocket PC - inc. Spreadsheet - Time Manager - Address & Phone Book - Text Processor - Calendar & Comms Software. R.R.P. £249.99 **Our Price £219**

520STFM. Explorer Pack - Ranarama - ST Tutorial - Desktop ST Basic.
Should be £299.99 **Our Price £269**

Power Pack

CX40 Joystick - Afterburner - Blacklamp - Bombjack - Bombuzal - Double Dragon - Eliminator - Gauntlet 2 - Nebulus - Outrun - Overlander - Pac Mania - Predator - R-Type - Space Harrier - Star Glider - Star Goose - Star Ray - Super Hang-On - Super Huey - Xenon - First Basic - Music Maker - Organiser

Only £349

Have a peaceful winter.
Send your kids to Pluto for £349

Super Pack

1024k Ram - ST Basic - CX40 Joystick - Arkanoid II - Beyond The Ice Palace - Black Lamp - Buggy Boy - Chopper X - Eddie Edwards Super Ski - Ikari Warriors - Marble Madness - Quadralien - Ranarama - Return To Genesis - Road Wars - Seconds Out - Starquake - Summer Olympiad - Test Drive - Thrust - Thundercats - Wizball - Xenon - Zynaps - Organiser Productivity Software (Spreadsheet - Wordprocessor)

Our Price £449

Star LC24 - 24 pin Printer - Cut Sheet Feeder - Paper Park	£320
Cumana 1 meg Disk Drive	£95
Atari Corp Megafile - 30 meg ST Hard Disk Drive	£439
Casio MT240 Full Feature Midi Keyboard and Adaptor	£119

We supply all available software and hardware for all major computers. Send SAE for our full price list to:-
Expedite Trading, Unit F, 41 Union Street, Kettering, Northants NN16 8JR
Tel: (0695) 26020. All prices include delivery and VAT.

K.J. & A. HUGHES

ELECTRONIC ENGINEERS

11 FAIRLIE, BIRCH GREEN
SKELMERSDALE, LANCS. WN8 6RF

ATARI 520 STFM
MEMORY UPGRADE. 512K TO 1 Meg.
FITTED BY US. 12 MONTH GUARANTEE

★ £68.50 ★

PLEASE RING FIRST FOR AVAILABILITY.

(0695) 26020

Price inclusive of VAT and postage.

Retail/Mail Order same price

Access VISA

30% Off RRP

TITLE	AMIGA	ATARI ST	IBM PC
DRAKKHEN	£20.99	£20.99	-
F15 STRIKE EAGLE	-	-	£17.95
F15 STRIKE EAGLE 2	-	-	£17.95
OPERATION THUNDERBOLT	£17.95	£17.95	-
SIDEWINDER 2	£4.49	£4.49	-
SPACE ROGUE	-	-	£20.99
XENON 2 MEGABLAST	£17.95	£17.95	£17.49

Other titles also available at fantastic prices
* * * * * * * * CALL NOW !!* * * * * * * *

CMS SOFTWARE
UNIT 3, 26 MARKET STREET, RHOS, WREXHAM, CLWYD
LL14 2HY TEL: (0978) 845274 P&P £1 IN UK

HEATH SALES + REPAIR + SPARES.

EST 1984

COMPUTERS

SPARES	
6510	10.95
6526	11.50
6581	15.00
6569	25.50
Kernal ROM	11.20
Basic ROM	12.20
Char ROM	9.25
PLA	9.75
8501	8.95
8360	21.50
Amstrad SPARES	PHONE
AMIGA SPARES	PHONE
CBM 128 SPARES	PHONE
Sinclair SPARES	PHONE

REPAIRS	
CBM 64	30.00
CBM 16	30.00
CBM+4	30.00
CBM128	40.00
CBM1541	40.00
CBM PRINTERS	40.00
MICROVITEC MON	40.00
AMSTRAD CPC	30.00
BBC B	40.00
SPECTRUM 48K/48+	20.00
SPECTRUM 128/+2	20.00
AMIGA A500	40.25

ANY OTHERS PHONE

SALES	
MINISCRIBE 32MB	240.00
MINISCRIBE 40MB	250.00
CBM CASSETTE	28.75
MICROMATE PSU (FORVIC20+64REPAIRABLE)	24.95
EPSON LX850 PRINTER	195.00
3 1/2" DISK IN 5 1/4 FRAME	85.00
GENIUS MOUSE + PAINT	50.00

PHONE FOR BEST PRICES ON PACKARD BELL PC's

ALL PRICES INCLUDE VAT & P&P
REPAIRS 24HR TURNAROUND + 3 MONTHS GUARANTEE

TEL: 021 707 7160

HEATH COMPUTERS & ELECTRONICS LTD.
OFFICE 10, I-MEX HOUSE
KINGS ROAD
TYSELEY
BIRMINGHAM B11 2AG

AMIGANUTS UNITED

RAYS PD LIBRARY IS NOW INTO ITS THIRD YEAR AND OFFERS THE LOWEST COPYING FEES IN THE U.K.

★ STOP PAYING OVER THE ODDS FOR YOUR PUBLIC DOMAIN SOFTWARE ★

Prices start at only fifty pence selected freebies with every ten progs ordered.

SEND FOR THE INTRODUCTORY OFFER TO THE FASCINATING WORLD OF PD CONTAINING:

The Amos Games Creator playable demo (this prog. is due for release in May) Breakout Construction Set allows you to design your own versions
(this also has a great educational game for the kids, called Brite Lites)
The Predators two disk megademo in 11 parts with two nice games.
The Main 1990 Library Disk, fully detailed descriptions of over 500 progs.
This 5 disk intro pack is offered at only £6.99 including post/packing
Please ask for Intro Pack 2 when ordering.

NEWSFLASH

Issues 6, 7, 8 now available, each issue comes with a support disk containing demos, utilities, helpful advice plus much, much more. Only £5.50 per set...please state which issue you require when ordering.

Two fantastic new progs available now at £2.00 each
Disk 512: The Great 1 Meg 'Star Trek Game' by T. Richter. (one disk)
Disk 498: 'Sid' Absolutely the best directory utility to date
April Library Update available from March 31st for £1.85.

Cheques/Postal Orders payable to: **AMIGANUTS UNITED,**
169 DALE VALLEY RD, HOLLYBROOK, SOUTHAMPTON SO1 6QX

PLEASE NOTE: Some PD disks contain language that may be considered offensive

---

• GAINSTAR REPAIRS • GAINSTAR REPAIRS • GAINSTAR REPAIRS •

IMB PC & COMPATIBLES
COMMODORE
SINCLAIR
ATARI
ACORN

GAINSTAR SOFTWARE LTD
COMPUTER REPAIRS
Avon House
Albany Park Ind Est
Camberley
Surrey
GU15 2PI

Tel: 0276 - 20144
0276 - 20226
Fax: 0276 - 29690

Our fast, friendly and efficient service to the general public and to the trade undertakes to repair any hardware from the above brands - GUARANTEED!

We offer you HIGH quality at a low cost so give us a ring at the above telephone number.

• GAINSTAR REPAIRS • GAINSTAR REPAIRS • GAINSTAR REPAIRS •

• GAINSTAR REPAIRS • GAINSTAR REPAIRS •

• GAINSTAR REPAIRS • GAINSTAR REPAIRS •

MERCURY SOFTWARE

20 X 31/2" Blank Discs + 40 capacity box ..£18.95
20 x 31/2" Blank Discs + 80 capacity box ...£20.95
10 x 31/2" Blank Discs £7.50

All discs double sided, double density complete with labels.
All boxes lockable with dividers.
All prices include VAT and free delivery

Cheques PO's payable to Mercury Software
37 Cowling Brow, Chorley, Lancs
Delivery by return of post.
Sales Hotline: 02572 66220
Personal Callers Welcome

VISA

THE ULTIMATE SERVICE.
JUST RING 0898 36 24 36.
DARE YOU LISTEN?
(25p/38p per min)

THIS SPACE CAN BE YOURS
FOR ONLY £35
To find out how it can work for you,
CALL SIMON MOSS NOW!!!
ON: 0225 442244

DIGITAL DISKS

(formerly Direct Disks)

All disks 2 for 1 replacement
All prices inc. VAT and Delivery

31/2 DS/DD	51/4 96TPI
10........£6.75	10........£5.00
20......£13.00	20........£9.60

Cheques/PO payable to Direct Disks

Digital Disks
60 Burnside Drive
Bramcote Hills,
Beeston
Nottingham
NG9 3EE

EXPRESS COMPUTERS

SPECIALISTS IN SECOND USER IBM COMPATIBLE COMPUTERS & EQUIPMENT

● PRINTERS ● PERIPHERALS●
● HARD DISKS ● COMPONENTS●
● NETWORK INSTALLATIONS●
●MAINTENANCE●

CALL NOW FOR YOUR BEST POSSIBLE DEAL

(0604) 35519

COMPUTERS & HARDWARE ALSO PURCHASED FOR CASH

Sublogic Flight Simulation Fans

Transform your flying by using real sectional maps and plotters. Everything for Flight Simulation Fans including the worlds best yoke.

Phone 12.30 - 1.00pm: 0831 334 077/
061 761 1902 6pm - 10pm.
Fax: 061 792 6102.

Flight Simulations, Dept C.R.
25, Milner Ave, Bury BL9 6NG.

---

nova

FAST, PROFFESIONAL AND FRIENDLY

DISCOUNT SOFTWARE

TITLE	Amiga	ST	C64	SPEC	AMST
X-Out	£14.99	£14.99	£7.49	£7.49	£7.49
Rainbow Islands	£18.79	£14.99	£7.49	£7.49	£7.49
Cabal	£18.79	£14.99	£7.49	£7.49	£7.49
Bomber	£22.49	£22.49	£11.29	£11.29	£14.99
Player Manager	£14.99	£14.99	-	-	-
OP Thunderbolt	£18.79	£14.99	£7.49	£7.49	£7.49
TV Sports Basketball	£22.49	£22.49	-	-	-
Ghouls N Ghosts	£18.79	£14.99	£7.49	£7.49	£7.49

PHONE FOR OTHER PRICES

MAIL ORDER ONLY

All prices include VAT, P&P, Cups of coffee etc.
Please make all Cheques/POs Payable to NOVA. Thank You.
NOVA (NG1), 30 Parsons St, Banbury, Oxon OX16 8LY ☎ (0295)262029

CROWN

Communications

OFFICE 4 1548 ASHTON OLD Rd OPENSHAW MANCHESTER
OFFICE TEL: 061 371 8269 FAX: 061 371 8254

Proprietor: P Johnson

Are offering the following positions

PROGRAMMERS

Programmers are required for the following machines,

1) PC (assembly level only)
2) Amiga
3) Atari ST
4) Archimedes

You will be expected to work in an office environment and to work closely with the project manager, the projects you work on (namely games) will last from 3 to 12 months and will be intensive and hopefully breaking new ground with the machine concerned. The pay will be according to experience and will be in the range of £7000 to £12000 per annum.

GRAPHIC ARTISTS

Graphic artists of exceptional quality are also required for the above machines, if you're a wizz kid with the pixels then we want to hear from you, if not then don't bother. Again pay is according to experience and ranges from £7000 to £12000 per annum.

PROJECT MANAGERS

Project managers who have experience with at least two of the above machines are required. The candidates must be able to show management potential as well as have a good programming background. Pay is expected to be around £18000 per annum.

ONLY IN EXCEPTIONAL CASES will we look to using a freelance programmer or artist so **don't** build your hopes up on that score.

We are also interested in looking at completed games with an eye to publishing them and game designs.

a word of advice

When sending disks for evaluation remember to label them clearly with both your full name and telephone number, and also the machine format, this prevents your work being ignored.

Programmers please don't just send in demos, ie a bouncing copper routine on the Amiga, this will hardly distinguish you from the crowd. Try to send a sample of a shootem-up you started or better still one you finished.

Try make programs autoloading or use a slide show for Artwork, this saves time when evaluating your work and puts it in a much more favourable light.

Never just turn up on the door step, it is unlikely that the person that you need to see will be available and it won't put you in a good light.

Try not to ask for your disk back and if you must have it back than be sure to send a prepaid envelope with it.
If you want to find out how your work was received then just make a polite call asking if the disk got there okay.

And most of all make sure we can read your hand-writing, a little time on preparing your work could mean the difference between you having the job or not.

If you follow these simple rules then you will find your application a lot more successful with ourselves and probably other companies as well.

Please send C.V. to: CROWN COMMUNICATIONS,

Office 4 1548 Ashton Old Rd, Openshaw, Manchester. Or Tel: 061 371 8269 Fax: 061 371 8254

PROGRAMMERS

BEFORE
AFTER

SICK OF LONG HOURS FOR NO EXTRA MONEY?

At Enigma we have a system whereby the faster you can write quality code the more money we pay! We are looking for dedicated people who want to earn a living at coding, not play games. The money is waiting, the work is waiting

all it needs is you!!

RING MARK OR RICHARD NOW

ENIGMA VARIATIONS

13 North Park Road, Harrogate HG1 5PD
0423 - 501595, FAX 0423 - 500291

TEQUE

Teque is one of the leading Software Development Houses in the U.K. We are creators of hit games such as Pac-mania, Xybots, Blasteroids, Prison, Thunderbirds, Toobin, Continental Circus, Passing Shot, Chase HQ and Laser Squad.

We are currently working on Scramble Spirits, Space Harrier II, Escape From The Planet Of The Robot Monsters, Shadow Warrior and Manchester United Football Club.

Due to internal expansion and the opening or our new London office we are looking for experienced programmers to work on 8, 16 and 32 Bit home computers and consoles.

We offer an extensive package to the right people. People interested in the positions in Rotherham please contact or send a full C.V. to Tony Kavanagh at the Rotherham address and people interested in the positions in London please contact or send a full C.V. to Dean Lester at the London address:

Tony Kavanagh,
Teque Software
Development Ltd.,
Teque House, Masons Yard,
Downs Row, Moorgate,
Rotherham,
South Yorkshire, S60 2HD.
Telephone: (0709) 370102

Dean Lester,
Teque London Ltd.,
2nd Floor,
120-150 Hackney Road,
London, E2.
Telephone: 01 739 3539

imagitec design ltd

"COME CLOSER MY FRIEND,

I have an interesting deal to make . . ."

Imagitec Design Limited, the largest entertainment software development house in the UK, is looking for talented souls. An unusual request you might think, but then, here at Imagitec, where we produce some of the most innovative software to be seen on both sides of the Atlantic, we've always had an eye for the unusual.

We are looking for more in-house programmers, artists, musicians and designers to join our current team of 35, based at our UK and Denmark offices. If you feel that you can program in 68000, 8086, Z80, 6502, V30, C or you possess good artistic, musical or design skills and original ideas, then we would like to hear from you.

We can't promise you eternal life, or anything even vaguely magical, but we do offer competitive salaries, good promotion prospects and pleasant, well equipped development facilities.

If you are still interested, and would like further details, then please call:
Neil Young or Martin Hooley
on (0924) 490345

or send a written application to:
Imagitec Design Limited
The Old Mill House
118 Shillbank Lane
Mirfield
West Yorkshire
WF14 0QT

. . . and perhaps we can do you a deal . . .

★ URGENT ★ PROGRAMMERS WANTED

Dynamite Designs urgently seek programmers who are familiar with 8 Bit and 16 Bit environments - to work on conversions and project work.
We seek programmers for Spectrum, Commodore, Amstrad, ST and Amiga.

If you are interested, please get in touch with Jim Scott on the number below:

Dynamite Designs, 19 Oaks Drive
Higham Ferrers, North Hants NN9 8EX
Tel: 0933 57998

ATTENTION AMIGA PROGRAMMERS !

Software Madness are looking for a programmer who can supply a display programme to display excellence, Word Processing, text, fonts and colours. If you can help us with this problem we would appreciate it and would gladly pay your fee.

Please ring Steve on (0582) 483640
Or write: 18 Butlin Road,Luton
Bedfordshire, LU1 1LD.

WANTED

FREELANCE GRAPHIC ARTISTS

(IFF FORMAT)

AND

MUSICIANS

★ ★ ★ ★ ★

Send 3 1/2" Demo Disks
TO

ANIMATIX VIDEO PRODUCTIONS
(NCE)
Unit 36
Brampton Centre
Wath-upon-Dearne
S63 6BB
or contact
Mike Parr on 0709 760151

IMAGES

Images, Europe's leading games design and production company, is seeking talented and professional programmers in the Leeds, Glasgow and Southampton areas. We are currently producing games for the NES, Sega, Atari ST, Amiga, IBM PC, Spectrum, Commodore 64 and Amstrad CPC.

We are also seeking talented and creative people who enjoy and understand computer games to work with us designing the No 1 games of the future.

We offer an impressive package of financial and professional support for the right applicants and an exciting and secure future working for one of the U.K.'s fastest expanding companies

Write in confidence, to:

Karl Jeffery, Images, Solent House,
183 West Street, Fareham,
Hampshire PO16 0EF

PROGRAMMERS

We are looking for talented people to join our successful team in

SWITZERLAND!

A good knowledge of machine code in either Z80, 6502, 8086, or 68000 is required.

WE ARE WAITING FOR YOU!

If you think you've got what it takes then contact Mark Grimmer.

Oh! Not to forget, we will pay your flight to the Swiss mountains....

LinEL

LINEL,
Guetlistrasse, 9050 Appenzell,
Switzerland.
Tel: 01041 71 87 49 19
Fax: 01041 71 87 49 21

PLACE AN AD

FREE!

Selling an old computer?
Need some help?
Got any tips?
Run a bulletin board?
In charge of a consumer group?
After a second-hand bargain?

● You've come to the right place. Just fill in the form to place a free classified advertisement in Shopping Express

● Send your reader ad to:

Reader Ads Department
New Computer Express
30 Monmouth Street,
Bath BA1 2AP

READER ADS ORDER FORM

PLEASE TICK THE CATEGORY YOU WANT YOUR AD TO GO IN:

☐ HELP OFFERED
☐ BUGS DISCOVERED
☐ ANNOUNCEMENTS
☐ GOODS WANTED
☐ EVENTS
☐ MINI-TIPS
☐ USER GROUPS
☐ SERVICES
☐ FOR SALE
☐ BULLETIN BOARDS
☐ VIRUS WARNIG
☐ PERSONAL

NAME ____

ADDRESS ____

____

____________________________ TEL: ________________

Terms and conditions

■ Sorry, NO trade ads. All reader ads must be from private individuals

■ We cannot vouch for the quality of goods and/or services offered in this section. all ads are accepted in good faith.

■ We reserve the right to amend or refuse reader ads at our discretion

■ No pirated software may be sold through these columns. Any reader being offered non-originals should contact us

■ We cannot guarantee that reader ads will appear in particular issues of Express

■ The following declaration should be signed:

My advertisement conforms to the terms above and is legal, decent, honest and truthful

Signed ____________________

COMPUTACHAT

Are you a computer games player, programmer, musician or artist?

Would you like to talk to others like you to swap hints, tips, pokes or even software (must be originals or PD).

Are you interested in forming a group to buy blank disks or cassettes in bulk or would you just like to chat in general about computer orientated activities.

RING COMPUTACHAT ON

0898 338939

EXPERTS ON HAND TO ANSWER ADVENTURE QUERIES

TME PLC, Box 54, South West Manchester M15

Calls charged at 25p/min "cheap" rate - 38p at all other times

---

ADVENTURE HELPLINE

Do you play computer adventures? Have you ever been faced with a seemingly impossible situation?

WE CAN HELP

Our adventure rescue team work 7 days a week until midnight and will be pleased to answer your queries. We offer help with any games or any computer - so if you are tearing your hair out ring this number NOW!

0898 338 933

T.M.E Plc 10b Hulme Hall Road. Manchester M15 4LY

Calls charged at 25p min "cheap" rate/38p at all other times

FREE DISKS ! ! !

1 FREE DISK FOR EVERY 10 THAT YOU BUY

10	3.5" DISKS + BOX	£09.00
25	3.5" DISKS	£19.00
50	3.5" DISKS	£33.50
50	3.5" DISKS + BOX	£38.00
100	3.5" DISKS	£63.00
100	3.5" DISKS + BOX	£67.50

Access VISA

ALL PRICES INCLUDE VAT

ALL PRICES INCLUDE DELIVERY

ORDER DESPATCHED SAME DAY

mph
COMPUTER SPECIALIST

10 CHANDLERS CT
EATON
NORWICH
NORFOLK

0603
503382

16/32 P.D.

PUBLIC DOMAIN FOR THE ATARI ST

Large Selection

Prices start from £1.00

Send A4 SAE with 25p stamp for catalogue or £1.25 for catalogue DISK with extra goodies to:

35 Northcote Road, Strood,
Kent ME2 2DH
Tel: 0634 710 788

Please state type of disk (single/double sided)

COMPUTER REPAIRS

Fixed Super Low Prices/

Inclusive of parts, labour and VAT

FIRST AID FOR TECHNOLOGY

1 WEEK TURNROUND

*** AMSTRAD / SINCLAIR AUTHORISED ***

SPECTRUM 48K	£14	C64	£22
SPECTRUM 128	£18	VIC 20, C+4	£22
SPECTRUM +2	£27	1541 DISK DRIVE	£36
C128	£29	C2N TDECK	£19
C16	£18	C64 PSU for sale	£27
Amiga	POA	Atari ST	POA

Please enclose payment with item - 3 month warranty on repair.
Please enclose advert with repair.

W.T.S. ELECTRONICS LTD
(NCE 15 03 90)
Studio Master House, Chaulend Lane, Luton, Beds. LU4 8EZ
Tel: 0582 491949
(4 lines)

Standard terms of business apply

C&M MICROS

DON'T BUY DISKS OFFERING ANYTHING LESS !

All our disks have a lifetime money back or free replacement guarantee. Each disk is certified 100% error free and comes complete with labels and tabs (5^{1}/4").

31/2" bulk disks manufactured by SONY/VERBATIM
51/4" bulk disks manufactured by SENTINEL/VERBATIM

Bulk disks	10	25	50	100	150	200	300	500
3.5" DS/DD(135)	£7.50	£18	£34	£66	£96	£124	£180	£290
3.5" DS/HD(2Mb)	£22	£53	£100	£195	£283	£366	£531	£856
5.25" DS/QD(96/48)	£4	£9	£16	£30	£43	£56	£80	£130
5.25" DS/HD(1.6Mb)	£8	£18	£32	£60	£86	£112	£160	£260
3" DS (Maxell)	£23	£57	£112	£219	£327	phone	for	prices

BRANDED DISKS MANUFACTURED BY THE SONY CORPORATION OF JAPAN.

Sony Brand		1-2	3-4	5-9	10+
3.5" DS/DD(135)	*Boxes*	£12.00	£11.50	£11.00	£10.50
3.5" DS/HD(2Mb)	*of*	£28.00	£27.00	£26.50	£26.00
5.25" DS/QD(96/48)	*10*	£11.00	£10.50	£10.00	£9.50
5.25" DS/HD(1.6Mb)	*disks*	£14.00	£13.50	£13.00	£12.50

Strong disk boxes. Lockable with 2 keys, dividers & recessed handle. Add £1 P&P if not ordered with disks.

3^{1}/2"	40 Capacity	£4.50	80 Capacity	£6.50
5^{1}/4"	60 Capacity	£4.50	100 Capacity	£6.50

COLOURS™ DISK PACKS. 10 coloured 3^{1}/2" DS/DD disks (2 of red, orange, yellow, green, blue) in a 10 capacity library case with labels and our lifetime guarantee....................Only £9.50
(Pic & Mix selections available, please phone for details!)

ALL PRICES INCLUDE VAT. P&P FREE (UK ONLY).
Orders below £15 in value carry a handling charge of £1.
Please phone or write for a FREE price list.

C & M Micros, Dept. NCE, 25 Middlefield Road, Bessacarr,
Doncaster, S. Yorkshire. DN4 7EB.
Cardnet credit card hotline (0302) 539955
or cheques/postal orders payable to C & M Micros.

We Accept EXPRESS VOUCHERS

VISA

Ladbroke Computing International

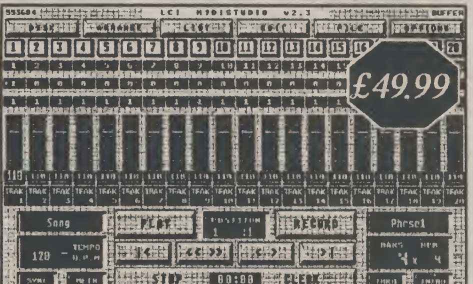
ST World
'Best Dealer' 1989

33 Ormskirk Rd, Preston, Lancs, PR1 2QP
Open Mon. to Sat. 9:00 am to 5.00pm
Dealer enquiries welcome.

Phone us for best prices. We will try to match any price.

We were voted Best Dealer by the readers of ST World because we give our customers the best available service from, both our shop premises at 33 Ormskirk road and through our Mail order department at the same address. FOR THE BEST SERVICE AND PRICES, SHOP WITH US. All Software and Hardware is fully tested prior to purchase. All hardware is supported by on site engineers so that quick turn around on all repairs is guaranteed. There are no hidden extras. All prices include VAT. Delivery is free on orders over £100, in Mainland UK (add £5 for courier delivery). All prices are correct at time of going to press and are subject to change without prior notice. Phone for up to date prices and advice, we are always happy to help.

Midistudio 20 track ST Midi sequencer



Midistudio is an attractively priced, 20 track Midi Sequencing package. It can record up to 682 bars per phrase (pattern) on up to 100 phrases. Any phrase can be placed on any track. Tracks can be soloed and muted and tracks and phrases can be named. Program numbers can be displayed in a variety of ways including 0-127, 1-128, in banks from a11-b88 or a01-b64. The Desk features sliders to set relative volumes on each track and you can even do a mix on the fly. Midistudio also has a clock to display the length of the last playback. Step time note edit functions are available including copy, split, merge, append, transpose, velocity editing (including a humanize function), full controller editing and different levels of quantizing. Midistudio works in medium and hi res. Demo disk £3.99. Not compatible with STE.

Midistudio Master. 30+ new features £129.99

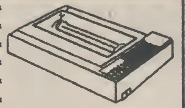
IMG scanner Scan at up to 1000 Dpi

IMG
Scan
£49.99
IMG
SCAN

The IMG scanner is a realistic, low cost scanner which can offer high quality graphics digitising for a tenth of the cost of other scanners. This simple unit plugs into the cartridge port of the ST and accepts scanned information via optical cables which fix easily to the head of any Epson compatible dot matrix printer. The software allows grey scales to be replaced with colours, 4 in medium resolution and 16 in low resolution and offers scanning resolutions of 75, 150, 216, 300, 360 and 1000 dots per inch horizontally. Best results are achieved with photocopies. Greater than screen resolution images are saved in IMG file format and can be edited with any compatible art package. Screen resolution images can be saved in Raw data, Degas or Neochrome formats and edited with compatible art packages.

Low resolution demonstration disk £3.99

Best Selling Printers



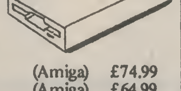
Star LC-10.	140/36cps	£ 164.99 *
Star LC-10 Mk II.	180/45cps	£ 189.99 *
Star LC-10 Colour.	7 colour	£ 209.99 *
Citizen 120D.	120cps	£ 134.99 *
Star LC-24/10.	170/57cps	£ 239.99 *
Citizen Swift.	192/64cps	£ 319.99 *

Star Professional Series Printers

Star FR-10.	9 pin, 300cps draft, 76cps NLQ.	£ 527.99 *
Star FR-15.	15" carraiage version.	£ 688.99 *
Star XB-24/10.	24 pin, 80 cps SLQ, LQ.	£ 688.99 *
Star XB-24/15.	15" carriage version.	£ 907.99 *
Colour upgrade for Star XB & FR range.		£ 39.99 *
Star Laser Printer 8, 1 Mb RAM.		£ 2287.35 *
Star Laser Printer 8DB, Double bin version.		£ 2977.35 *
Atari SLM804 Laser with 90 days on site warranty.		£ 1099.99

*. All these printers carry a 12 months on site maintenance warranty and come complete with Centronics cable. On site warranty UK mainland only. All printers are top quality products for the UK.

ST & Amiga Disk Drives



Cumana 3.5" CAS 354.	(ST)	£89.99
Ladbroke's 3.5" 1Mb	(ST)	£69.99
Cumana 1Mb, internal.	(ST)	£74.99
Please note, ST's case requires modification for this internal drive.		
A/B boot switch, fitted.	(ST)	£24.99
Cumana 3.5" CAX 354, disable switch etc.	(Amiga)	£74.99
Ladbrokes 3.5", 1Mb, disable switch etc.	(Amiga)	£64.99

Monitors & Peripherals

Atari SM124 Mono	£109.99 *	Joysticks from	£ 4.99
Atari SC1224 Colour	£279.99 *	Portfolio add-on's from	£ 39.99
Philips 8833 Colour	£249.99 *	Trak ball (ST / Amiga)	£ 19.99
Philips 8802 Colour	£239.99 *	Mouse mats from	£ 5.99
Philips 15" FST, remote, Scart input, Tv with 60 tuner presets, timer and teletext.	£259.99	Mouse/joystick extension	£ 5.99
		Amiga modulator	£ 19.99
		Hawk scanner	£ 1249.99

* Deduct £10 if bought with computer, Scart cable included

ST & Amiga Hard Drives

Megafile 30	(ST)	£399 .99
Supra 30	(ST)	£474.99
Third Coast 65Mb	(Amiga)	£659 .99
Vortex 40Mb	(Amiga)	£499 .99

Ladbroke Computing Hard drives

We have a range of high quality ST hard drives at affordable prices. All have a minimum specification of: full metal case with push button on/off switch mounted on front and 60 watt PSU, Autopark mechanism, has room, power connections and controller capability for second mechanism, external push button DMA device No. selection. The controller is full SCSI and can support up to 8 drives. The software includes Autoboot and up to 14 GEM partitions.

40HD	42Mb formatted, 11Ms, 64K on board cache.	£ 549.99
50HD	48Mb formatted, 40Ms average access time.	£ 499.99
60HD	61Mb formatted, 24Ms average access time.	£ 639.99
85HD	84Mb formatted, 24Ms average access time.	£ 699.99
110HD	111Mb formatted, 15Ms average access time.	£ 799.99

Phone for Larger capacity drives.

Repair Centre & Upgrades Ex - stock

512K STFM RAM Upgrade fitted.	£ 74.99 *	512K STFM RAM upgrade, kit.	£ 49.99 *
512K STM RAM Upgrade, fitted.	£ 74.99 *	512K STE SIMM's, SIP's	£ 49.99 *
512K populated ST board, fitted.	£ 109.99	512K populated ST board, kit.	£ 99.99
2Mb populated ST board, fitted	£ 224.99 *	2Mb populated ST board, kit	£ 199.99 *
2Mb unpopulated ST board, fitted.	£ 59.99 *	2Mb STE SIMM's, SIP's	£ 249.99 *
STFM Blitter chip,fitted	£ 49.99 *	STFM Blitter chip, kit	£ 39.99 *
512K unpopulated Amiga board	£ 19.99	512K populated Amiga board	£ 59.99
512K unpopulated Amiga board+clock	£ 29.99	512K populated Amiga board+clock	£ 69.99

* Please check configuration before ordering. Our Atari trained engineers can repair all hardware, including Amigas, in minimum time at competetive prices. Fitting prices quoted for machines not previously tampered with. All upgrades and repairs carry our 3 months parts and labour guarantee.

Networking & Mac Emulation

- ▶ Network up to 32 ST's.
- ▶ Up to 500 Ft between ST's.
- ▶ 31K Baud data transfer rate.
- ▶ Full data correction.
- ▶ File locking.
- ▶ Networking permissions.
- ▶ Allows upto 12 hard/RAM disk partitions.

▶ SGSnet Starter kit	£ 149.95
▶ SGSnet add-on kit	£ 99.95

- ▶ Turn your ST into a Mac Plus.
- ▶ Reads and writes to Mac disks.
- ▶ Supports 99% of all packages.
- ▶ Supports Hard drive and second floppy drive.
- ▶ Compatible with STE.
- ▶ 30% bigger screen area than Mac Plus.
- ▶ 128K ROM's in stock.

▶ Spectre GCR	£ 284.99
▶ With 128K ROM's	£ 384.99

Entertainment packs

520 STE Explorer	£279.99
520 STE Power pack	£369.99
1040 STE Hyper pack	£459.99
520 STE upgraded to 1Mb	£339.99
Amiga Batman pack	£369.99
Amiga Batman + pack	£399.99

STE Prices While Stocks Last

Power pack consists of Organiser software, First Basic, First music and games including, Afterburner, R-Type, Gauntlet II, Super hangon, Space harrier, Mousetrap, Buggy boy, Super huey, Eliminator, Nebulus, Pacmania, Predator, Bombjack, Bombuzal, Xenon, Double dragon, Blacklamp, Outrun, Stargoose, Starray.

Hyper pack includes Hyper Paint art package, Hyper draw vector drawing package, Borodino strategy game and Metacomco Basic.

Batman + pack includes A500 Batman pack, mouse mat, joystick and the Tenstar games pack with Photon paint.

Quality 3.5" Disks

	Unbranded		Sony Branded
Quantity	Loose	Boxed	Boxed
10	£6.99	£7.99	£9.99
100	£64.99	£74.99	£89.99

All disks are Sony, Maxcell or Kao and carry an unconditional lifetime guarantee. Please add 60p P&P for each pack of ten disks.

Connectors & Dustcovers

ST Centronics lead	£14.99	Monitor covers from	£4.99
Atari Monitor lead	£5.99	LC-10 printer cover	£7.99
Pair of Midi leads	£7.99	Hard drive cover	£4.99
Amiga Scart with sound	£14.99	ST cover	£3.99
Null Modem cable	£10.99	Amiga A500 cover	£3.99
8 bit Printer interface	£29.99	Mega 2 cover	£7.99
Atari DMA cable	£15.99	Disk drive cover	£2.99

Disk boxes from £4.99. Phone for care kits.

Business & DTP Systems

Mega ST1 + SM124	£ 599.99
2Mb upgraded 520STE	£ 449.99
4Mb upgraded 520STE	£ 624.99
Portfolio (pocket PC)	£ 224.99
Atari PC4 (80286)	£ 1349.99
Atari PC5 (80386)	£ 2069.99
DTP Mega 2 pack	£ 1674.99
DTP Mega 4 pack	£ 1999.99
A4 Flat bed scanner	£ 449.99

This high quality 200dpi flat bed scanner is also a thermal printer and photocopier. It can scan high resolution images in up to 16 grey scales. Software runs on Amiga and ST (ST software includes editor) and requires 1Mb of memory. This is probably the most cost effective piece of office equipment you could own. Centronics cable included.

VISA Access

(0772) 203166 Fax 561071

Ladbroke Computing International is a trading name of Walton Marketing Limited. Copy date 07/03/90

To assist us in processing your order please quote this code.
SST3.5

THE PRICE IS RIGHT

The Apple Macintosh. Everyone raves about how good it is. Everyone moans about how much it costs. Andy Storer finds out the facts behind the most user-friendly computer there is.

RODIME
20 PLUS

• The Mac Plus with third-party hard drive comes in at around £1,450 – but with the price comes arguably the best personal computer on the market.

The Apple Macintosh range of computers are generally accepted as being the friendliest computers for everyday use. Their much copied – but never equalled – windows, icons, menus and pointer system, provides an easy means of navigating the machine's excellent range of applications, and what's more, all software conforms to the same 'front-end'.

Even function and combination key presses are identical across a wide range of programs, allowing you to quickly familiarise yourself with new packages. All the machines are bundled with *HyperCard* and those featuring 1.44Mb disk drives come with *File Exchange* software enabling you to read and write to MS-DOS format.

With the built-in systems software there is also a good range of different fonts, utilities and desk accessories supplied as standard. So from an owners' point of view, the Mac is probably unequalled in terms of sheer usability. But becoming an Mac owner doesn't come cheap!

STATESIDE SHOPPING

Once upon a time it made sense to fly to the States to buy a Mac. There, you could pick up a machine for 40 per cent of the cost here.

To some extent it's still worth making the trans-Atlantic trip. For instance, the entry level Mac Plus is £1,100 here yet only £600 in the US, while a top-of-the-range IIci, costing you £7,700 in the UK, can be picked up for only £3,600 in New York. But you will have to declare it to customs on return where duty of 4.5 per cent and VAT of 15 per cent will be added to the receipt you show. So you will be paying somewhere between £100 and £700 extra, and will also have to include at least £300 for air and hotel costs.

You would also have to take Apple's policy on 'grey imports' into account. To put it in a nutshell, any warranty on Apple kit purchased outside of the UK would be invalid. Therefore the cost of any repairs would have to be borne in full by yourself, and you would probably have to import any spares from the States for yourself too, since authorised Apple dealers here are mostly reluctant to let them go to non-AppleCare subscribers.

But then as Apple kit is well-built and very reliable you might think it a risk worth taking.

VARIETY PACK

Altogether there are 14 different configurations of Mac machines, but these can be divided into two main varieties – the self-contained units represented by the Plus, SE and Portables and the modular systems comprising the II range.

The Plus is the entry-level model and comes with 1Mb of RAM, a keyboard and 800K internal floppy drive. As with the basic SE, which has a faster chip and two 1.44Mb floppies, the Plus only really comes into its own when used in conjunction with a hard disk. This is because part of the Mac operating system is loaded in from disk each time rather than residing in ROM chips. As such, and despite the sophisticated yet easy to use interface, even the most simple system calls – say to copy or delete files – require a lot of floppy disk swapping.

So it's essential to have either an additional floppy or a hard disk, otherwise operations can be painfully slow. Just loading an advanced piece of software such as the DTP classic, Quark *Xpress,* can take over a dozen disk swaps! But with a hard drive included, and the SE range come with 20 and 40 Mb versions, the system is a dream. Especially if you have the 2Mb or 4Mb of RAM fitted as standard in the other four models of the SE range, and particularly if you have the 68030 chip found in the top two.

SE STARTING PRICES

Prices for the SE range start out at £1,995 for the double disk drive version, while a 2Mb RAM SE with a 20Mb hard drive costs £2,525 – £2,829 for the 40Mb version.

Moving up to the 68030-based SE/30s, £3,536 will buy you a 2Mb RAM, 40 Mb hard disk model while the same machine with 4Mb of RAM goes for £4,075.

PRICEY STUFF

If you think the prices for the self-contained units (See box) are a little high you should take a look at those for the Mac II modular range. But to be fair, in both ➤

JUST FOR STARTERS

The Mac is blessed with huge range of software including tens of thousands of PD and shareware products. Although software, like hardware, does tend to be expensive, you're paying for excellent packages that perform reliably. Just for starters, compare the number of packages in the list below to those available for your machine

8 Accounts
8 Project management
14 CAD/CAM
13 Databases
20 DTP
21 Graphics
15 Word processors

Authorised Dealers for Claris

NEWTECH SYSTEMS LTD

9 Wallis Gdns
Waterlooville
Hants PO7 7SA

Tel: (0705) 267550/598835 Fax: (0705) 255190

Our Customer Care Policy

Are you buying on price alone?? Or are you discerning enough to know that you may need support!!

- *Some dealers offer you unbelieveably low prices on a range of products but what do you do when things go wrong, and how much will it cost you?? What about service, registration and upgrades?*
- *Some dealers will offer you good support when you buy from them, but it can be painful on the wallet*
- *At **Newtech Systems** we firmly believe we have the balance right. We are able to offer you competitive prices and the service and support you need, the care you are entitled to as a customer. In addition we can also offer a range of training courses that can be tailored to suit your requirements.*
- ***Finally, a couple of words about Grey Imports - We Don't!!***

Training - Service - Support

DTP & Graphics

PageMaker 3.5	425.00	545.00
Quark Xpress	545.00	695.00
Design Studio	465.00	596.00
RSG 4.5	483.00	550.00
Adobe Illustrator	429.00	550.00
Aldus Freehand	378.00	450.00
Letra Studio	390.00	500.00
Studio 8	230.00	303.48
Claris MacDraw II	275.00	325.00
Claris Cad	510.00	599.00
Dreams	250.00	320.00
MiniCad	495.00	595.00

Monitors

Radius FPD SE/SE30	925.00	1125.00
Radius TPD SE/SE30	1295.00	1595.00
Radius Greyscale	1950.00	2495.00
Radius DirectColour/8	3595.00	4595.00
Radius DirectColour/16	4700.00	5995.00
Hitachi SilverMac	1784.00	2250.00
Hitachi ColourMac	3167.00	3950.00
Sigma Page View FPD/SE	845.00	1066.00
Sigma Page View TPD/SE	1582.00	1995.00
Supermac 19" Monochrome	935.00	1270.00
Supermac Greyscale Monitor	1215.00	1495.00
SupemMac 24/Mac II	4500.00	5994.00
Supermac 8/Mac II	3120.00	4344.00

Scanning & OCR

Sharp JX-300 (A4)	1768.00	2070.00
Sharp JX-450 (A3)	5490.00	6430.00
Abaton Scan 300GS	1430.00	1675.00
Microtek MSF300Z	1546.00	1950.00
Microtek MSF300G	1253.00	1580.00
MicroTek MSF300Q	1300.00	1650.00
Omni-Page	550.00	695.00
Image Studio	429.00	550.00
Digital Darkroom	240.00	339.00
Logitech Scanman	289.00	345.00
Sharp HandScan Col.	458.00	545.00
Howtek Scanmaster		POA
Agfa Focus II		POA

Business & Presentation

Microsoft Excel	209.00	275.00
Informix WingZ	248.00	295.00
Claris MacProject	375.00	395.00
Microplanner Vs 6	423.00	495.00
Omnis 5	425.00	595.00
C.A.T.	315.00	450.00
FileMaker II	195.00	225.00
MicroSoft Word IV	209.00	275.00
Claris MacWrite II	155.00	175.00
WordPerfect	175.00	249.00
Aldus Persuasion	378.00	450.00
MicroSoft Powerpoint	209.00	275.00
Cricket Presents	300.00	425.00

Disk Drives

Rodime Plus 20Mb	415.00	500.00
Rodime Plus 45Mb	550.00	702.00
Rodime Plus 60Mb	620.00	795.00
Rodime Plus 100Mb	846.00	1083.00
Rodime Plus 140Mb	1055.00	1350.00
Cutting Edge 20Mb	365.00	439.00
Cutting Edge 45Mb	512.00	609.00
Cutting Edge 105Mb	1029.00	1225.00
Microtech 40Mb	584.00	625.00
Microtech 80Mb	862.00	1010.00
Microtech 100Mb	930.00	1090.00
Microtech 150Mb	1132.00	1325.00
Microtech 45Mb Removable	765.00	895.00
DataPak 45Mb Removable	1095.00	1395.00
DataPak Duet Twin 45Mb	2095.00	2595.00

NetWorking & Comms

Tops 3.0	160.00	219.00
Tops DOS 2.1	100.00	140.00
Tops Flashbox	115.00	150.00
Tops Flashcard	125.00	165.00
Vicom III	135.00	175.00
Inter Talk 2	650.00	795.00
Intertalk 2i	484.00	595.00
DaynaTalk Mac	130.00	159.00
MacLink Plus	135.00	179.00
LapLink Mac Vs.3	117.00	140.00
Abaton Interfax	315.00	375.00
NeuNet	CALL	

Multi-Media

NeoTech Imagegrabber	1095.00	1395.00
ColorSpace IIi	1895.00	2395.00
Voice Navigator	1025.00	1295.00
VideoWorks II	203.00	259.00
MacroMind Director	475.00	595.00
MacRecorder	169.00	199.00
Screen Recorder	125.00	149.00
Swivel 3D	355.00	425.00
Micro TV Mac	235.00	279.00
Nu-Vista		POA
VideoBox		POA
RasterOps Framegrabber		POA

Printers & Plotters

GCC Business Laser Printer	2100.00	2595.00
GCC Personal Laser Printer	1300.00	1495.00
Hewlett Packard Deskwriter	725.00	895.00
Hewlett Packard PaintJet	860.00	995.00
Hewlett Packard XI	2095.00	2450.00
Mitsubishi G650 Colour	5876.00	6995.00
Hitachi Colour	9650.00	10500.00
HowTek Pixel Master		POA
Roland DXY 1000 Series		POA
Roland DPX 3500		POA
Roland DPX 2500		POA
Roland LTX 420		POA

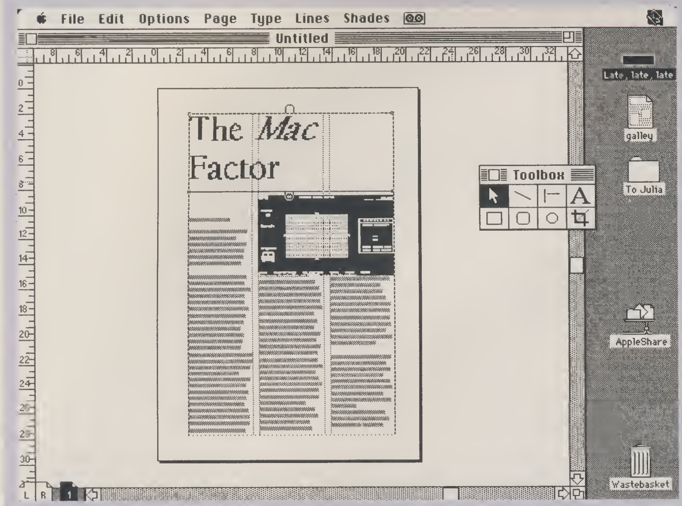
How to Order

Lines are open 9am - 6pm Mon-Fri. Alternatively you can send your order by post or Fax direct. We accept major credit cards. We also welcome orders from Govt., Education and military establishments. Prices are exclusive of VAT, Postage and Packing. NewTech Systems reserve the right to alter prices without prior notification.

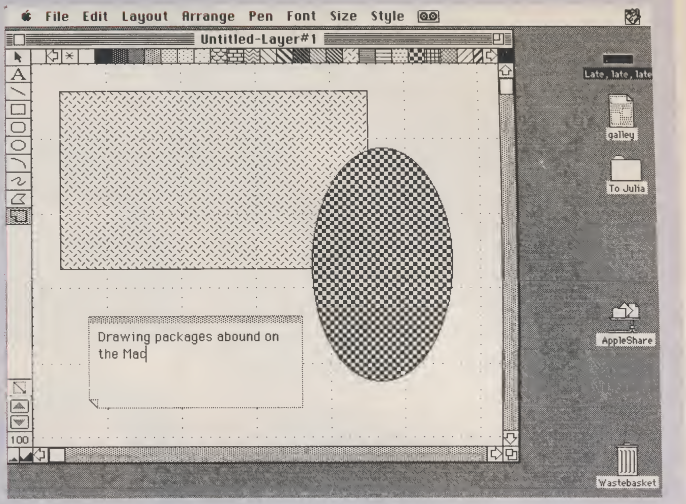
Access

VISA

THE SECRET'S IN THE SOFTWARE



• Much of the attraction of the Macintosh lies in its superb serious software. PageMaker, above, was the first desktop publishing program, and has been joined by the likes of Quark Xpress, Design Studio and Ready Set Go!, all of which are far superior to any equivalent programs on other machines.



Drawing packages abound on the Mac

• Another strong Mac area is graphics. The Mac II's superb colour potential makes it the machine of choice for multimedia work. This is MacPaint – note the desktop in the background and the icon in the top-right corner which switches between programs when in multi-tasking mode.

• The top of the range, the Mac IIci, a 68030-based powerhouse with 4Mb of RAM and an 80Mb hard disk

cases you are paying for the build-quality and reliability that everyday professional demands require. Nevertheless, Apple's pricing strategy remains a moot point. Last year's decision to cut the price of the Mac Plus by 25 per cent was warmly greeted, but only led enthusiastic commentators to suggest 50 per cent would have cleaned the floor of competitors. By the time you've added a £300 20Mb hard disk to the Mac Plus to make it properly functional, you're still talking nearly £1,500 for a 1Mb, 68000 machine with a single floppy.

But for those seriously interested in professional use, the cost of a Mac II system won't appear that excessive.

All the Mac II machines have a 68030 chip fitted as standard and come with either 2Mb or 4Mb of RAM, and either a 40Mb or 80Mb hard disk. For these configurations, prices start out at just under £5,000 and go up to £6,250. These sums will buy you just the central processing unit, mouse and systems software with *HyperCard* and MS-DOS drive readers thrown in for good measure. So you'll have to pay another £340 for a 12-inch mono monitor or £800 for a 13-inch colour monitor, along with the appropriate video cards to support them, costing between £160 and £575. Also you will need to include a keyboard in your costing here – at £110.

Since at some stage you'll want to print out your various works you might want to opt for the essential Mac add-on – the LaserWriter for between £2,300 and £5,285 or the Apple Imagewriter at between £500 and £1,150. Other makes of laser can be used as long as they support the PostScript printer standard. Everyday Epson-compatible printers can be used as long as you have the necessary drivers available from PD sources for around £30.

THE ULTIMATE PORTABLE?

For sheer sophistication, portability and reliability they don't come much better than the Macintosh portable. Racing along at 16MHz and containing some high-spec sound and video ports, the machine is being touted as the mobile multimedia tool *par excellence*. Designed for the up-town businessman as well, the portable might cost you £5,170 with a 40Mb hard disk but it really is the bee's knees.

SO ARE THEY WORTH IT?

Yes. You will be hard pressed to find anyone who has ever used one to tell you otherwise. The Mac is easily the most addictive hardware ever devised. Not only does it look good and have a crisp operation, but most of the software is entirely compatible with everything else. Thus you can easily create a picture in one and paste it into another, no problem at all.

With *HyperCard* you have access to the hippest collection of PD software in the world, and, if you have the money, the sky's the limit on video, sequencing and sampling kit. DTP was born on the Mac, and the machine remains its main platform.

So if you like the look of the Macintosh range, fly to America, use other people's money, or start saving. But there are another two possibilities. If you are a student you can get up to 25 per cent discount on the prices quoted for the entire range.

Of course if none of these appeal, or your finances make them completely impossible, then you can always transform your ST or Amiga with an emulator. Models for the ST and Amiga cost £380 and £240 respectively, and generally speaking work well and reliably, although you are denied some of the more sophisticated Mac features, such as the built-in networking capability.

In the final analysis, the Mac is well worth the financial effort it takes to get hold of one. ■

• The Mac portable is the ultimate machine for the top executive. Its high-resolution screen is astoundingly good.

MAC-SIM-ISE YOUR ST OR AMIGA

If you fancy a cheaper alternative to all this expensive Mac kit, but like the sound of the world of software, you might like to take a look at emulation on the machine you already own.

GST's Spectre GCR Mac emulator for the ST sells for £378, supports hard drives, and effectively converts your ST into a Mac running some 20 per cent faster than a Mac Plus, with a larger screen display, and a high degree of compatibility. The manufacturer claims it will run all Mac software except those applications specifically designed for the 68020-based Mac II. More from GST on 0954 81991.

Meanwhile Amiga owners should take a look at A-Max from Entertainment International on 0268 541126. Available for the A500, 1000 and 2000 for £240, A-Max allows Mac format disks to be used directly during Mac emulation and, ironically, Spectre disks too! However, unlike when using Spectre you won't be able to run a hard disk while in Mac emulation mode. This is a shame since on the ST, Spectre's hard disk access times are faster than those of Apple's own and make disk-intensive programs fly along. Plans to incorporate this into the A-Max specs are said to be in the pipeline.

PHILIPS
AMSTRAD
CPC 464
ATV
START
ONE PLAYER
CHOOSE CONTROL

SO WHAT HAPPENED

Last year CodeMasters placed large ads featuring its revolutionary CD games disc for £20. Since then little has been heard of this wonderful-sounding device. Adam Waring and Trenton Webb take up the trail...

At Christmas, CodeMasters was poised to take the 8-bit gaming world by storm with its revolutionary CD Games Pack. Advertisements were places, massive press coverage was recieved. Months later it is still not here. So what has happened to 8-bit CD?

CodeMasters – previously simple budget game specialists – was touting a system that contained 30 games, could load them in seconds from any domestic CD player, and would cost a mere £20. The CD Games Pack was set to make loading errors a thing of the past, and bring the 8-bits back into the fray as serious games machines. At least, that was the plan.

It's three months since those early boasts, and the CD Games Pack has already conspicuously missed it's chart-storming target. Indeed, of the three systems – Spectrum, C64 and CPC – planned, only the first two have so far made it onto the shop shelves.

Speculation about the purpose, profitability and even common sense of the project is understandably growing. Is there room in the market for yet another gadget to be plugged into the back of your friendly neighbourhood micro? Is it possible for a company to successfully assume the mantle of hardware manufacturer and software house simultaneously?

A STARTER FOR 10

CodeMasters spokesman Mike Clarke explained the initial reasoning behind the project: "The CD Games Pack is in fact a spin-off. It's something we thought we could do, call it a starter for 10. Nice and easy technically, although there with a bit of sourcing and manufacturing involved. Practice, I suppose.

"Our hardware team needed something to cut their teeth on, and they thought they could do it, no problem. Remember, we're only talking about a lead here! It's not like Miles Gordon, who had to get a whole computer assembled. We also had the benefit of Richard Darling's trip to Taiwan, where he'd met a lot of manufacturers and made a lot of connections."

The reason for this searching out of technical expertise, however, is still shrouded in secrecy. It appears that the CD Games Pack may have been a 'dry run' for another product, one that may debut this year – more than likely at one of the big consumer electronics shows such as the CES in Chicago or the ECT in London.

Concentrating on the present 'revolutionary' system, though, pushes other questions to the fore. How did a software house, especially one with such a cheap and cheerful image as CodeMasters, become convinced people would want to buy the Games Pack?

"Initially, our techniques were fairly simplistic. Included with our higher price games was a registration card, and a large number of people sent them back. So we sat down with a massive stack of these cards and rang around asking a list of questions. 'Do you have CD player in the house? Would you be able to use it with your computer?' Which was practically all we needed to know."

This research revealed the following: two metres was the optimum length for the cable; a surprising number of people had CDs and computers (40 per cent); and a lot of houses had more than one CD player! Commented Clarke: "It also showed that most people don't know the first thing about how their CD player works. They didn't want to begin messing around with the connections at the back, so we had to work out of the headphone jack."

ADVERTISING CAMPAIGN

CodeMasters was willing to back up this initial optimism with a massive advertising campaign to push their baby in the vital Christmas market. The company found to its cost, however, that hardware projects can be hit by as many delays as can software – and missed the boat.

"We were anticipating getting it out in the first week of December, whereas it was only finished a week before Christmas. It probably didn't even reach the shops before the New Year – which could be described as a monumental cock-up – but there's no way we could avoid it. It's made a little headway in the Commodore charts, which is quite surprising because there haven't been many of them around!

"Regard it's position now in the same light as the Atari Lynx, which was only obtainable in New York over Christmas, because they restricted the market. Something similar has happened here, it's still a very fresh and happening product that's got long way to go. There are a lot more people out there who actually want these things than have managed to get hold of one. The Press has seized on it as a wonderful idea."

The CD Games Pack did appear briefly in the shops, but mysteriously disappeared almost immediately. This only fuelled rumours that the system didn't meet the specs, or even didn't work at all! The reason for such a disappearance is put firmly at the door of the CD player manufacturers by CodeMasters, as certain systems forced a product re-vamp to guarantee 100 per cent compatibility.

"A few people were unable to coax it into working with a certain brand of CD player. But the new version works with it, and on the loading menu it now actually states brands. It's given us the chance to offer a few more options on the loader cassette. There's the normal option which will work with 99 per cent of CD players. Then you've got an option which loads more slowly but is even more reliable. Finally you've got an option in which you can't reset out and load another game, but is totally reliable. And on the CPC version you've also the option of transferring the loader cassette to disk, because that's one bit of software we don't mind getting spread all over the world!

COMING SOON

Mike Clarke is eager to make the best of the situation: "The response has been so good it has, if anything, encouraged us. It was definitely a step in the right direction and we want to do more 'firmware' – something between hardware and software – it's a nice place to pitch ourselves. We're often perceived in some areas of the press as a 'budget house', a company that just throws games at people. We've made some money on the £2.99 stuff and can now start sinking it into other ventures. We're very happening and set to get a whole lot more exciting.

"It's too early to say for certain that it's the medium of the future, but there are four other CD products in development at the moment. It's an idea we definitely want to push, we're not scared of the thing. As for the future with the 16-bits, we'll have to see.

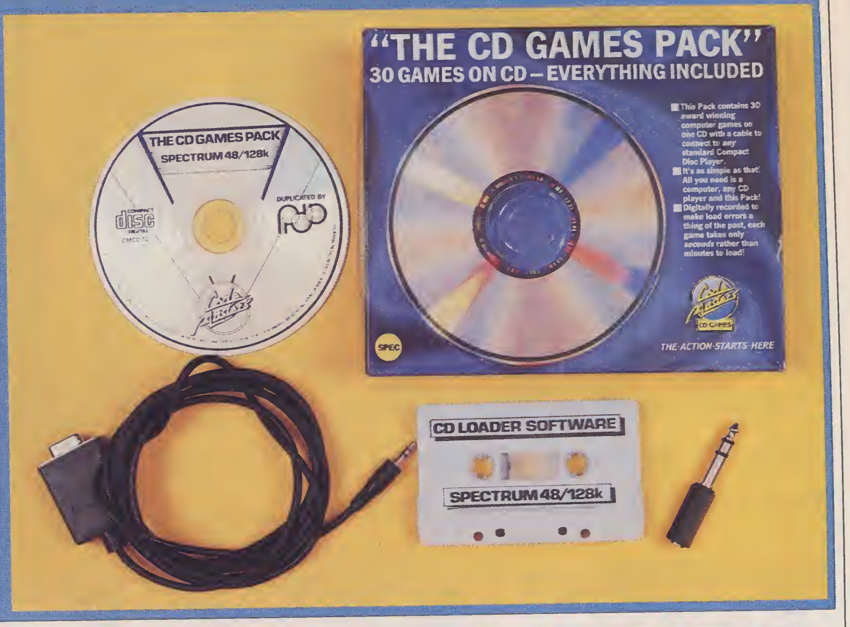
"The £2.99 stuff is our bread and butter, a little measure to keep the wolf from the door. Whatever anybody says, it keeps selling and it keeps selling in quantity. People out there want to play our games and it's really good news, because it's money we can rely on. We don't want to lose any impetus in the budget market because of the CD."

WHAT DO YOU GET FOR YOUR MONEY?

Opening the box reveals a whole host of goodies. The lead is truly immense. The unusual length is vital, as not everybody's parents will be willing to disassemble the hi-fi whenever a game needs to be loaded. An adapter is included so that the lead can fit into both the standard 3.5mm headphone sockets or the miniature plugs found on portable equipment. The electronics are moulded into the computer end of the cable, which connects to the joystick port of the computer.

The inclusion of a cassette tape may seem odd at first, but before the computer can load anything from the CD player it must have the software to do it. The tape contains a loader which is only a few hundred bytes in length. Once loaded then the tape need not be used again – each game has a quit option that will reactivate the loader. CodeMasters toyed with the idea of recording this loader at standard tape loading speed on the CD, but dropped the idea as it would involve too much lead-swapping and generally add techno-fear to an already confusing concept.

The CD itself is crammed full with the games. Each game is recorded twice just in case there are any problems with dirty discs. Although the advertising claims there are 30 games on each disc, CodeMasters have generously added one or two more, utilising all the available space.


THE CD GAMES PACK
SPECTRUM 48/128k
"THE CD GAMES PACK"
30 GAMES ON CD – EVERYTHING INCLUDED
This Pack contains 30 award winning computer games on one CD with a cable to connect to any standard Compact Disc Player.
It's as simple as that! All you need is a computer, any CD player and this Pack!
Digitally recorded to make load errors a thing of the past, each game takes only seconds rather than minutes to load!
CD GAMES
THE·ACTION·STARTS·HERE
SPEC
CD LOADER SOFTWARE
SPECTRUM 48/128k

NED TO CODEMASTERS' CD?

The Press generally is as interested in the technology CodeMasters has pioneered as the Games Pack itself. Surely other software houses must be queuing up to licence the technology, now that someone has got it working?

"No-one in Britain's come to us about licensing. I think they're all sitting back and waiting to see how we do, because we're breaking into a new market. We've got to establish awareness, gain consumers' confidence, get them to accept the product for what it is and not to be scared of games on CD. We're working on that now, so if it does go really high up in the charts, people will start talking about it as a product and not an oddity."

Licensing would make a lot of sense, though, if the 'oddity' fulfills its financial promise. CodeMasters has already spent an estimated £22,000 on designing, building and filling the market with the CD leads. Add this to a cost of only 90 pence per CD itself and the margins start to look pretty healthy.

"It's more profitable to sell games at £20 than £2.99. Now that sounds obvious, but there is a lot more behind it. When you take into account distributors' and retailers' margins, we're making the same profit on one of those at £20 as we are on five budget games at £2.99."

CodeMasters has begun a profitable revolution with its CD Games Pack, but has found the process can be pretty painful for all the parties involved. It remains to be seen whether it's the beginning of a CD-based coup – or whether it was the manufacturing experience CodeMasters sought, and not a user base for a new system. The future for the CD relies on licensing, as even their own vast back catalogue can't stand much raiding at 30 games a shot.

If nothing else has been gained from this adventure in hardware, CodeMasters has enhanced its reputation and stated its intention to become a major player in the future of the leisure industry. ■

CHANNEL TROUBLES

There were the inevitable teething problems with the CD. To get the system loading as fast as possible, CodeMasters designed the lead to read both left and right channels – doubling the speed of transfer. Unfortunately, some brands of compact disc player suffered from cost-cutting design.

Instead of having a digital–audio converter (DAC) for each channel, these models share a single converte, switching rapidly between the two channels to give the effect of continuous stereo. The resulting stereo signal is slightly out of phase.

The phasing effect is not too noticeable to the ordinary punter (although the hi-fi purist would object), but to a computer the signal is rendered incomprehensible.

The system has now been modified to take into account these older machines – by using a slower but more reliable recording – and should now be compatible with 100 per cent of CD hardware.

CD GAMES PACK – CD-ROM?

CD-ROM is in. Everybody wants one, but nobody can afford one.

These hi-tech gadgets load data ultra-fast from conventional Compact Discs containing a vast amount of pre-recorded information. The devices are totally computer-controlled, making them highly interactive. As well as an enormous amount of raw data, CD-ROMs can also hold high-quality music and video.

The data is stored digitally on the Compact Disc and can be read directly by the computer.

There is price to pay for this leading-edge technology, though. Even if these up-to-the-minute gadgets were available for 8-bit micros, they would be well above the price range of your average Speccy owner.

The CodeMasters device is not a CD-ROM. It does not interact with the computer, and it does not read the information digitally. Instead, the data is stored as a series of two-tone 'beeps'.

It can be described more accurately as a glorified tape loader that owners of these down-market micros have come to know and hate. Play the CD games pack through speakers and you will hear that horrendous howling noise that only tape-based 8-bit computers can bear to listen to.

However, a CD-based loading system offers many advantages over the more traditional tape. Because the information is recorded digitally, there is no trace of the 'noise' associated with audio recordings – the cause of many a load error. This more accurate sound means that the signal can be replayed more quickly, certainly several times faster than tape, and still retain excellent reliability. CDs offer better 'data integrity' – they are not susceptible to distortion from magnetic sources and can withstand a relatively high quantity of dirt and scratches. Finally, although the system is not computer interactive, CDs can be split into tracks. By recording each program on a separate track, the search facilities that all domestic CD players feature can be used to manually select the required games.

TECH TIPS

Does your PC keep packing up? Is your Amiga less than friendly? Would your ST try the patience of a saint? Write to Uncle Tech Tip, he'll see you right. Send your sorry stories to Uncle TT, 30 Monmouth Street, Bath BA1 2AP. There's a prize for the most pitiful tale

HELP! Train me!

Please could you help me with a small problem I have with my Atari ST? At the moment I only really play games with the machine, but I would like to start programming. Is there any place where I could go to learn programming, or would I have to learn it on my own?

Also, please could you send me a signed photograph?

Samantha Brook, Doncaster, South Yorkshire.

Doncaster is, I believe, a large town. Large towns almost invariably have a technical, FE or HE college (particularly in the North, where 'local-boys-made-good' decide to invest some of their pile in a public building or teaching establishment, in order that their name will live on). To determine the location of any college in Doncaster, pop along to your local library, they will have addresses and probably even a prospectus or two.

Depending upon your age and status, a basic course in programming will cost somewhere between nothing and £100. Sounds like a lot, but you will get expert tuition and help to support the concept of education for all.

If there isn't a college near you, you don't have the time to attend it or you can't afford to pay the course fees, get back to the library and run your fingers over their computer section. I guarantee almost all of the books will be out of date, mainly dealing with machines such as the Spectravideo, TRS80 and TI994/a, but in among the antique computers there will be several texts detailing BASIC, Fortran, Pascal, COBOL and the like which, with a modicum of application on your part, will teach you everything you need to know about programming the Atari ST.

You will, of course, need to have implementations of the languages you wish to learn. BASIC is easy – the ST comes complete with a copy, but Fortran, COBOL and the like will have to be purchased separately. If you can't afford compilers (programs which take the language commands you've written and convert them into a form the ST can understand), they're available from public domain libraries for a nominal fee. Buying a couple of these will enable you to try out several languages to determine which one is best for you.

Signed photograph? Only if you send me one first...

HELP! Shared TV

I have recently bought a new television, and my ST now comes through on the same channel as the video, which louses up the respective signals. The TV manual states that a computer can be connected to the SCART socket.

Will this stop the interference? If so, where can I buy such a cable? How much will this SCART lead cost and where would it plug into the back of the ST? If not, please suggest some other connection method, as I cannot use the video while the computer is on.

Glyn Wade, Stoke on Trent, Staffs.

Connecting your machine via a SCART socket will almost certainly help with the problem of interference.

You can buy a SCART lead for the ST from Evesham Micros for around £10. This cable will have a SCART connector at one end and a standard ST monitor plug at the other.

One end goes into your ST's monitor jack socket, the other into the TV.

HELP! Serial solution?

Last year I scraped together enough money and bought an Amiga together with an A501 512K memory upgrade. I was – and still am – very happy with my machine, but my problems started when I decided to get a printer to make listings of my programs and to produce some low-resolution graphic dumps.

A friend of mine had an old printer that he didn't use any more, that had been attached to an Atari ST. He offered it to me for free and I accepted because I could not afford the £150 for a new printer. The printer he gave me was a C-Itoh M8510 Plus serial device which did not have a manual. I acquired a serial printer lead, connected the printer to my Amiga, selected the serial printer mode from Preferences but nothing happened!

I've spoken to Commodore's technical department and I was advised that the problems could be with the pin-outs from the printer or the settings of the dip switches. C-Itoh have said that special driver is required for this printer. As I have no manual for the printer, I'm totally clueless! Could you tell me how the dip switches should be set, and where I can get a suitable printer driver that would enable the printer to work with my Amiga?

I am also looking to buy a word processor when finances permit. Would one of these have the correct driver I need?

Mark Lee, Slough, Berks.

OK. Back to basics. The printer worked perfectly well with your friend's ST, right? Why not borrow the serial lead they used.

In this way, you'll be able to discover whether the fault lies with the serial cable you've acquired. The Amiga and ST have exactly the same serial port, and leads are entirely interchangeable between the two.

How did your friend use the printer with his word processing and graphics programs? Did they have to get a special printer driver? There's no reason why your printer – given the correct lead – shouldn't print in the serial standard ASCII mode supplied with all word processors (although this won't enable you to print graphics).

As for the dip switches, unless one of the esteemed Techtippers has a manual or some information to spare, I'm

HELP! Upgrading the Commodore Amiga

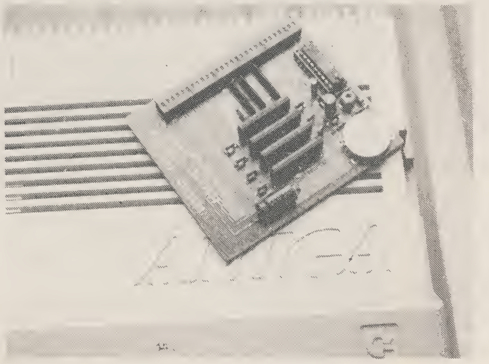
Please could you tell me where I can buy an Amiga 1084 monitor and can you tell me the price of one?

Also, I am thinking of buying a A501 memory upgrade, can you tell me what it can do?

Lee Hanson, Portsmouth, Hants.

Sure. The 1084 monitor can be had for £299.99 from Silica Shop. Call the company on 01-580 4000.

What can the A501 memory upgrade do? It can expand the amount of RAM memory your Amiga is equipped with. Expanding the amount of memory a computer has at its disposal will enable you to greatly increase the performance of the machine. You will be able to make better use of databases, spreadsheets and word processors by holding far more data in RAM, desktop publishing applications benefit by being able to manipulate far larger documents with more fonts, pictures and the like. Many games also benefit by being run on larger memory machines providing better graphics, more digitised sounds and speech, and faster animation (the computer can store more animation frames in memory and does not need to access the disk quite so often). If you can afford it, a RAM expansion is one of the best upgrades you can give to your machine.



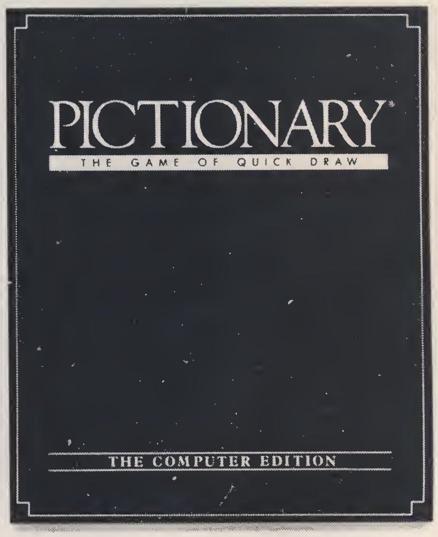
• Commodore memory upgrades aren't the only possibilities – third parties produce many, including this one from MicroMegs

Save £5 on 16 bit software

(Hardly a 2 bit offer)

TM
ocean
TM & © 1964 DC Comics Inc.

GHOSTBUSTERS II
ACTIVISION


PICTIONARY
THE GAME OF QUICK DRAW
THE COMPUTER EDITION

Enter Boots before 21st April, and you'll find £5 zapped off selected 16 bit titles. From having the last laugh on the Joker, to joining Indiana Jones on the Last Crusade, the choice is mega. Drop in, and you could save quite a bit.

A better buy at Boots

AVAILABLE AT LARGER STORES ONLY.

afraid I can't help – C-Itoh is not exactly brimming over with information!

If you try a different cable and get some print-out – however unintelligible – experiment with the dips. Don't worry, you can't damage anything and may discover the true setting. As with any obscure bit of kit, you're going to have to burn the midnight oil in an effort to discover the correct configurations. Frustrating, but it's all part of the fun of computing.

HELP! Time warp

Our family are newcomers to the world of Amiga computing, having recently upgraded from a Spectrum. We bought the machine in October last year and soon after, bought a second drive. A few days before Christmas we treated ourselves to an early present and bought ourselves a Commodore PN 312600 expansion kit.

A few days after Christmas we realised that the clock was gaining time at quite an alarming rate (the year had advanced to 2000!). We took the expansion kit back to the shop where we bought it and it was replaced with another.

Unfortunately, we now find that the new clock is behaving in exactly the same way. We have reset it several times but it still gains. The shop suggested that perhaps the computer was not being used enough to keep the battery charged. We did charge the battery for 24 hours when we first installed it, and the computer is used for several hours every day.

Is it possible that we are doing something wrong, or could it be a fault with the computer?

The other question concerns our printer. We bought a Star LC-10 colour printer last week and are very pleased with it, but there are a couple of queries that we can't find the answers to.

We have installed the printer with the correct driver and it works fine through Workbench and with *DPaint* and a working demonstration copy of *Protext*. What we cannot understand is if you open the System drawer, there is an icon for initialising the printer. When we have clicked on the icon it is rather like double Dutch! We can find no reference to this anywhere. Can you help?

The last question concerns the use of the graphic dump in the Workbench. We have managed to print out a nice copy of the Workbench screen, but cannot work out how to do anything else with it. There must be another use. Is it possible to use it to print screens from games for example? If so, how do we do it?

Ann Sporne, King's Lynn, Norfolk.

What could be wrong with your clock? The problem may lie with the battery, but I doubt it – you seem to be giving the machine enough use. All I can suggest is that, being new to computing on the Amiga, you may have it connected incorrectly. Try taking the whole machine plus expansion along to the store that sold you the clock and ask them to have a look at it.

Don't worry about the printer initialisation icon in the System drawer. It's there so that you can create the necessary driver (a little list of commands to get your printer to perform with paint packages and other applications) for printers that don't have a driver. As you've said, the LC-10 works perfectly from the Workbench, *DPaint* and other applications, so leave well alone!

The graphic dump is for doing exactly what you've already been doing with it – reproducing computer screens on your printer.

Unfortunately, although in theory you should be able to print screens from your favourite games, in practice this is extremely difficult as most games have code to stop you tampering with them (this is primarily to stop users making pirate copies of the games).

However, many clever Amiga owners (yes, there are one or two) have written little utilities to enable you to stop games and copy their screens, and there are several of these programs available from the public domain. Contact Senlac Software on 0424 753070 for an example.

HELP! Upgrade query

I have recently sold my Atari 520STFM with a view to upgrading to an STE, but with all the problems being encountered by those who own the STE, I would like to change format to an IBM PC compatible which would also be more useful at college and work.

Fortunately, I'm in a position to be able to afford a 386 machine. However, as this is a 32-bit chip would there be any problems with the 16-bit software available for PC compatibles? Will there be problems with my Star LC-10 printer? Finally, are you aware of a good manual which gives an overview of the PC, and instructions on connecting devices to the expansion slots?

Peter Gordon, Glasgow, Scotland.

Fortunately, the 386 PCs are downwardly compatible with their smaller brothers – the common or garden PC and compatibles. You can run any software on a 386 that you can run on a less powerful PC. Likewise, all peripherals such as printers, drives, monitors, modems and the like will work perfectly. You can continue to use the Star LC-10.

An excellent manual detailing the hardware specifications of the PC is the *PC Upgrade Handbook* (ISBN 1 85058 118 5) by Clive Smith and published by the Sigma Press. It's available from all good High Street book stores for £9.95

HELP! Wear the mask

Could you please advise on the possibilities of using a BBC emulator and a PC emulator on my newly-acquired Commodore Amiga 500? Should I be considering an IBM PC 5.25-inch disk? What other hardware do I require to access the software for the above mentioned makes of computer? How much will it all cost? Should I consider buying a cheap BBC B or Master *(There's no such thing – Unc).*

My main reason for buying the Amiga was to acquire the latest technology I could afford. The BBC computers are not made now, so I'm told, and the IBM PC appears to be entirely business-based. I think BBC educational software is a vast area from which my children could benefit greatly.

Gerald Harris, Heath, Cardiff.

Hey Gerald, haven't you bought rather a white elephant?

You're anxious to use BBC educational software (the Beeb Master is still available and there are thousands of BBC Bs on the second-hand market) and you want to use IBM PC software. Why didn't you buy either of those computers, at least then you would only have to emulate the other rather than both. I suppose that selling the Amiga and buying one of the latter machines is out of the question?

OK. Beeb and PC emulators are available for the Amiga and work with varying degrees of success. The BBC emulator is not an emulator at all, but a language which enables you to run BASIC (and only BASIC) programs on your Amiga, but as there are lots of BASIC educational programs around, this should cover what you want to do. The emulator written by Ariadne is available from Commodore itself.

Until recently, the only PC emulator available for a Commodore machine was the Bridgeboard for the A2000. The launch of KCS's Power PC Board changes all that however, by bringing PC compatibility to the unexpanded A500. The board supports the Amiga's internal 3.5-inch drive, and as most new PC software is available in this format, you'll have access to almost everything.

Fairly simple to fit, is priced at £299 and can be bought from Bitcon Devices, 88 Beswick Road, Gateshead NE8 1RS The price includes MS-DOS. ■

HELP! Some advice on setting up screen shots

I am writing to ask if you could give me any tips on how to produce quality photographic screen shots from the Amiga screen. I am producing a fanzine for my A-level communication studies project and have encountered a few problems when trying to photograph the screen. So if possible, could you tell me how to produce the quality shots that I see in your magazine. Also, have you any tips on the editing and designing aspects when creating a magazine. I hope to create a new and original format so I will send you the finished product and see what you think of it.

John Safa, Lenton, Nottingham.

You will need a 35mm SLR camera for best results. Buy some 100ASA colour transparency film – be prepared to use lots and lots of this – load your camera, secure it to a tripod and attach a cable release to the shutter trigger.

Place the tripod in front of the Amiga's monitor or TV so that the camera lens is at the same height and square relative to the screen. Darken the room or drape a large velvet cloth over the screen and camera. If you want to shoot a game, pause the action at the point you wish to photograph.

Open the lens aperture as wide as it will go (usually around f1.8). Set the shutter speed to a 1/2 second and release the shutter. Wind on, set the shutter speed to a 1/4 second and release the shutter again. Repeat with shutter speeds of 1/8th and 1/16th. You now have four exposures of the screen you wished to photograph, one of which will have just the right balance of tones to be perfect for reproduction. It's wasteful of film, but that's how it's done (or rather, that's how we do it).

Design tips? Don't listen to anyone. And don't read any of those trashy pamphlets by 'popular' computer writers purporting to tell you how to design like the experts.

Good design is exceedingly difficult to quantify, but is generally that which doesn't get in the reader's way. Let loose with a desktop publishing program and access to a hundred fonts, most novices pepper their publications with typefaces and end up with something that looks like a Victorian circus poster – absolutely appalling! In Tech Tips, we use Placard for headlines, Helvetica for the text, and that's it!

When you design a page, try roughing it out with a pencil and paper first. The temptation is often to fiddle endlessly with an on-screen version in the DTP package, but unfortunately most budget DTPs don't have the speed or flexibility to design 'on-line'. You are much better off working out what you want to do first.

The best tip is to cut along to a newsagent and examine every magazine you can lay hands on.

520ST-FM SUPER PACK

1Mb DISK DRIVE £450 OF SOFTWARE

ARCADE GAMES

Arkanoid II	Imagine	£19.95
Beyond The Ice Palace	Elite	£19.95
Black Lamp	Firebird	£19.95
Buggy Boy	Elite	£19.95
Chopper X	Mastertronic	£9.99
Ikari Warriors	Elite	£14.95
Marble Madness	Electronic Arts	£24.95
Quadralien	Logotron	£19.95
Ranarama	Hewson Consultants	£19.95
Return To Genesis	Firebird	£19.95
Roadwars	Melbourne House	£19.95
Starquake	Mandarin	£19.95
Test Drive	Electronic Arts	£24.95
Thrust	Firebird	£9.95
Thundercats	Elite	£19.95
Wizball	Ocean	£19.95
Xenon	Melbourne House	£19.95
Zynaps	Hewson Consultants	£19.99

SPORTS SIMULATIONS

Eddie Edwards Super Ski	Elite	£19.95
Seconds Out	Tynesoft	£19.95
Summer Olympiad '88	Tynesoft	£19.95

PRODUCTIVITY SOFTWARE

Organiser	Triangle Publishing	£49.95

JOYSTICK

Atari CX40 Joystick	Atari Corp	£4.99
FREE ATARI BUNDLE VALUE:		**£458.97**

The Atari Super Pack is ideal for you if you want to get off to a flying start with the best in entertainment software. The Pack includes a 520ST-FM with ½Mb RAM, a built-in 1Mb disk drive, over £450 of top games and a joystick. If you buy the Super Pack at Silica Shop, we will add our own ST Starter Kit (worth over £200), Free Of Charge. Return the coupon for details.

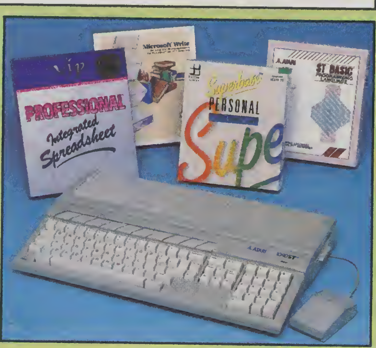
£399
INCLUDING VAT

With SM124 mono monitor: £498 INC VAT With SC1224 colour monitor: £698 INC VAT

1040ST-FM PROFESSIONAL PACK

NOW WITH TV MODULATOR

For the serious home user and the small business, we are pleased to announce a new package based around the 1040ST-FM. The 1040ST-FM has 1Mbyte RAM and a 1Mbyte built-in disk drive. In addition, the 1040ST-FM now comes with a TV modulator built-in. (The previously available 1040ST-F was designed for use with a monitor only and did not come with a modulator.) This modulator allows the 1040ST-F to be plugged directly into any domestic TV set, and comes complete with a lead to allow you to do so. The new 'Professional Pack' from Silica includes the new 1040ST-FM with modulator plus four high quality software packages including a spreadsheet, database, word processor and programming language. This 'Professional Pack' software will enable you to get straight down to business with your new computer. In addition to this software (worth £384.84), if you buy the Professional Pack from Silica Shop, you will also receive the Silica ST Starter Kit (worth over £200), Free Of Charge. Return the coupon for further information.



£499
INCLUDING VAT

With SM124 mono monitor: £598 INC VAT
With SC1224 colour monitor: £798 INC VAT

ATARI 1040ST-FM	(Computer)	£499.99
VIP PROFESSIONAL	(Spreadsheet)	£149.95
MICROSOFT WRITE	(Word Processor)	£149.95
SUPERBASE PERSONAL	(Database)	£59.95
BASIC DISK & MANUAL	(Language)	£24.98
NORMAL RRP:		**£884.82**
LESS DISCOUNT:		*-£385.82*
PROFESSIONAL PACK PRICE:		**£499.00**

2Mb & 4Mb MEGA ST

The MEGA ST computers are styled as as lightweight keyboard with a separate CPU, connected by a coiled telephone style cable. There are two versions of the MEGA ST, one with 2Mbytes of RAM and the other with 4Mbytes. Each version has a 1Mbyte double sided disk drive built-in to the CPU unit. The MEGA ST's do not come with modulator built-in and must therefore be used with a monitor. With every MEGA ST purchased, we will add the 'Professional Pack' software (worth £384.83) detailed above, plus the Silica ST Starter Kit (worth over £200) both Free Of Charge. Return the coupon for further details.

2Mb MEGA ST
£899 INC VAT
+mono monitor=£998
+colour monitor=£1198

4Mb MEGA ST
£1199 INC VAT
+mono monitor=£1298
+colour monitor=£1498

DTP PageStream £149 +VAT =£171.35

Desktop Publishing (DTP) is one of the fastest growing applications for personal computers. We are pleased to announce a powerful low cost package for the Atari ST called PageStream. PageStream costs only £149 (+VAT=£171.35) and, because it works with an Atari 1040ST and a Seikosha SP-180AI printer, you can be up and running with a complete system for less than £1000. Some of the features of PageStream are listed to the right. If you would like further information on this program, complete and return the coupon below, ticking the 'DTP' box in the corner.

* TEXT-FLOW AROUND GRAPHICS
* ROTATION OF TEXT & GRAPHICS
* SLANT OR TWIST ANY OBJECT
* POSTSCRIPT COMPATIBLE
* TAG FUNCTION
* AUTO/MANUAL KERNING & HYPHENATION
* GROUPING OF OBJECTS

DO YOU OWN AN ATARI ST?

If you already own an Atari ST computer and would like to be registered on our mailing list as an ST user, let us know. We will be pleased to send you copies of our price lists and newsletters FREE OF CHARGE as they become available. Complete the coupon and return it to our Sidcup branch and begin experiencing a specialist ST service that is second to none.

SILICA SHOP:

SIDCUP (& Mail Order) 01-309 1111
1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX
OPEN: MON-SAT 9am - 5.30pm LATE NIGHT: FRIDAY 9am - 7pm

LONDON 01-580 4000
52 Tottenham Court Road, London, W1P OBA
OPEN: MON-SAT 9.30am - 6.00pm LATE NIGHT: NONE

LONDON 01-629 1234 ext 3914
Selfridges (1st floor), Oxford Street, London, W1A 1AB
OPEN: MON-SAT 9am - 6.00pm LATE NIGHT: THURSDAY 9am - 8pm

ATARI ST

ST COMPUTERS

The range of Atari ST computers offers something for everyone. From the games enthusiast who wants the challenge of the very best in arcade action, to the businessman who wants to make financial forecasts or faultless presentations. The ST offers high quality graphics, sound and speed for the gamer, whilst providing a fast, user friendly and affordable solution to business. The ST is now firmly established in the home environment and boasts a wealth of users in education, local government, television, and a variety of different businesses. Software for the range stretches to cover applications as diverse as ENTERTAINMENT, ACCOUNTS, ART, COMMUNICATIONS, COMPUTER AIDED DESIGN, DATABASES, DESKTOP PUBLISHING, EDUCATION, MUSIC, PROGRAMMING, SPREADSHEETS, WORD PROCESSING and more. For a full list of the software available, as well as details of the ST range, complete and return the coupon below.

All prices correct at the time of going to press. E&OE.

520ST-FM EXPLORER PACK

WITH BUILT-IN 1Mb DISK DRIVE

The value for money offered by the Atari ST range is reflected in the Explorer Pack featuring the 520ST-FM computer with 512K RAM. The 520ST-FM computer now comes with a built-in 1 Mb double sided disk drive as well as a free mouse controller and a built-in TV modulator. The new 520ST-FM Explorer Pack includes the 520ST-FM computer, the arcade game Ranarama, a tutorial program and some useful desktop accessories. In addition, if you buy the Explorer Pack from Silica, we will give you the Silica ST Starter Kit worth over £200, FREE OF CHARGE. Return the coupon for details of our Starter Kit and of the full ST range.

£260

ONLY £2.51 PER WEEK
RETURN COUPON FOR DETAILS

+VAT= £299

+ SM124 mono monitor: £398 INC VAT + SC1224 colour monitor: £598 INC VAT

WHY SILICA SHOP?

Before you decide when to buy your new Atari ST computer, we suggest you consider very carefully WHERE you buy it. There are MANY companies who can offer you a computer, a few peripherals and the top ten selling titles. There are FEWER companies who can offer a wide range of products for your computer and expert advice and help when you need it. There is ONLY ONE company who can provide the largest range of Atari ST related products in the UK, a full time Atari ST specialist technical helpline and in-depth after sales support, including free newsletters and brochures delivered to your door for as long as you require after you purchase your computer. That one company is Silica Shop. We have been established in the home computer field for ten years with an annual turnover in excess of £8 million and can now claim to meet our customers requirements with an accuracy and understanding which is second to none. But don't just take our word for it. Complete and return the coupon below for our latest literature and begin to experience the Silica Shop specialist Atari service.

SILICA STARTER KIT: Worth over £200, FREE with every Atari ST computer bought from Silica.

PROFESSIONAL PACK: Free business software with 1040ST-FM and MEGA ST's bought from Silica.

DEDICATED SERVICING: 7 full-time Atari trained staff with years of experience on Atari servicing.

THE FULL STOCK RANGE: All of your Atari requirements from one place.

AFTER SALES SUPPORT: The staff at Silica are dedicated to help you get the best from your ST.

FREE CATALOGUES: Mailed direct to your home as soon as we print them, featuring offers as well as all of the new releases.

FREE OVERNIGHT DELIVERY: On all hardware orders shipped within the UK mainland.

PRICE MATCH PROMISE: We will match competitors on a 'same product same price' basis.

FREE TECHNICAL HELPLINE: Full time team of Atari technical experts always at your service.

FREE SILICA STARTER KIT WORTH OVER £200

WITH EVERY ST - RETURN COUPON FOR DETAILS
ALL PRICES QUOTED INCLUDE FREE UK DELIVERY

To: Slica Shop Ltd, NCE 0390, 1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX

PLEASE SEND FREE LITERATURE ON THE ATARI ST

Mr/Mrs/Ms: .... Initials: .... Surname: ....

Address: ....

....

....

.... Postcode: ....

NCE 0390

Do you already own a computer
If so, which one do you own? ....

DTP ☐

FROM THE TOP

In the last year Atari has never been far from the headlines with a series of major releases and controversial problems. Bob Gleadow, Atari UK's managing director, is the driving force behind the British end of the company, and Colin Campbell went to meet him...

• Bob Gleadow, Atari's UK boss: never said the STE was an Amiga beater.

Atari's ST, while far from the autumn of its years, has reached the safety of middle age. It is neither state of the art, nor outdated junk – but it has passed its prime as an admired piece of hardware. With characteristic savvy its maker and guardian has performed the necessary transition with common sense. That is, to position the machine not as a bright new thing for the computer literate, but as a no-nonsense entry level option for the masses who have yet to fully comprehend that there's more to computing than bytes, floppies and *Pacman*.

Atari would rather be selling computers than positioning them in some grand scheme. But position it must in order to introduce the five year-old ST to what continues to be the most important person in home computing – the first-time buyer.

TOP MAN

Bob Gleadow, for the past three years Atari UK's top man, is fronting the operation. He's not just the managing director of Britain's sales operation, but more significantly, a touchstone for the decision makers in Sunnyvale, California. With the UK so important to Atari Inc, his performance is vital.

His ruffled hair and amiable manner belie a wolf-like approach to business that incorporates aggression with a subtlety, which opposite numbers lack.

Like most businessmen he says 'we like to think we can afford to be nice', but he'd rather like to think he can thrash his competitors if he has to.

He is most certainly faster at making decisions than his adversaries, but this can have an unpleasant effect. Buyers of the STE – shipped-in at short notice last December to cope with yet another Christmas shortage – will testify to this.

It was Gleadow who picked up the telephone and dragged the computers into Britain when seasonal demand and a dock strike threatened to mangle up sales plans. And, despite predictable compatibility problems, he'd probably do the same again.

But his immediate concern does not centre around supplying demand – more with generating it. Bargain hunters may be pleased to learn that this will be achieved through the ST Discovery Pack (*Express* 70).

Bundles are bundles are bundles, and they are usually cobbled together with a degree of sales cynicism. Atari is no less guilty of that than any other company, but this time there appears to be a genuine attempt to give people what they really want: a good computer, a guiding hand, and some freebies to boot.

"What we want to do this year is position the 520ST as a first-time buyer's machine with a £299 pricepoint. We're trying to separate out the first-time buyer and the second-time buyer – one with an attractive £299 package, and the other at £499 where we'll actually look to sell the 1040."

This may smack of marketing mumbo-jumbo, but therein sits the future of one of Europe's most popular home computers. Gleadow is no longer content to fight it out with the Amiga – he's now after those people who would normally be wondering whether a CPC would be better than a Spectrum.

"It's a better deal. When you buy an 8-bit computer you still have to look at a disk drive and other extras. With the 520 you're getting a superior machine with a 1Mb disk drive and access to a wide range of software packages."

POINT TAKEN

He has a point. Buy a tape-driven CPC and you're looking at £299. Buy one with a disk drive and that's £399. The Speccy isn't much better. A Plus 3 will cost £100 less than the ST – but it's largely based on a computer introduced almost 10 years ago.

It has to be noted that the ST has been selling for £299 for ages. But people don't simply want a piece of hardware, they want a fully-fledged computing option – hence the new emphasis. The 520 ST is no longer in a head-to-head battle with the Amiga. It's an alternative to the 8-bits. At least that's the theory. ■

GLEADOW ON THE STE

"We released the STE prematurely. We brought in 20,000 last December and they all sold through. The justification for our doing that was that there was a dock strike at Folkestone and we had to fly them in," says Gleadow.

This isn't exactly saying 'sorry we did wrong' but it is something of a departure from the arrogant attitude displayed when the STE compatibility fiasco was in full swing.

Then, when leading ST software packages were not running on the upgrade, Atari was adamant that it could not be held responsible for the follies of over-ambitious programmers who saw fit to break the rules on earlier models.

Nevertheless, these follies are well known to all in computing and really should have been added to the formula.

Gleadow explains: "We all know that programmers take short cuts. The problem was that they were violating Atari guidelines. The problem with the Atari guidelines is that you could go round them with one version of a product with no problem. But of course when Atari comes to do the next version it takes those guidelines as the Bible and sticks to them. That's how we guarantee compatibility."

Except of course, in the event, real-world compatibility could not be guaranteed.

Whatever, the wails of 'I should have bought an Amiga after all' from disgruntled buyers have floated away. Software publishers are falling into line, and with the STE now priced at £100 more than the STFM, Atari is saying that those 20,000 buyers can count themselves pretty lucky.

The STE is a 'serious' computer. "You can upgrade it to almost anything you want. 4Mb packs are already available from third-party dealers, proving that there is a market demand for the serious user."

The STE costs serious money. Atari is deliberately steering prospective purchasers toward the £499 option with extra goodies. One suspects the basic £399 model will not be one of Atari's big sellers this year.

But is the STE an 'Amiga beater'? "I never said it was," he replies. "It's an improvement on the existing machine."

GLEADOW ON BUSINESS

"Over the last two or three years Atari has become a multi-product manufacturer. By the end of this year you'll see Atari being successful in consoles, with the Lynx, in business machines and there will be the beginnings of a workstation presence. So as we have evolved over the last three years we have had to change our style."

With such a broad range of gadgets and computers within his remit, it's no wonder Gleadow is looking to "be in the background". When he started at Atari, life was a good deal simpler. But now he's controlling everything from games software in the ARC division, through old consoles, the new ST console (still pencilled in for the autumn), Lynx hand-held, Portfolio pocket PC, to all the STs, as well as the forthcoming TT, a line up of PCs and the top end ATW Transputer Workstation.

With that kind of job spec it's no wonder he has to leave the nitty gritty to employees. But how much of what we see is dreamt up by the boss? "A degree of that does happen but before we do anything we get a group of people together and have what I call a 'bullshit session'.

"We look at what we're putting together, what we're asking people to buy, and we throw ideas at each other.

"Ultimately though, I have the casting vote."

The best thing about being the boss of a hardware operation is, he says, the salary, but pay cheques tend to demand a lot of graft. "I think so. When I come in every morning I think I'm going to be leaving at six o'clock, but the hours tend to drag on."

He considers his greatest success at Atari to be the firm's current standing. But what of his biggest regret? Surprisingly it's in that area where the ST has really proved its worth as a serious tool – desktop publishing. Gleadow says he should have moved faster two years ago when DTP was still more of a buzzword than a reality. "We should have recognised the capabilities of the ST in DTP early on."

Gleadow views it as a real alternative to the Apple Mac rather than being the poor imitation some have suggested (including the market in general).

But he sees the TT as "my second chance to get into DTP and graphics".

GLEADOW ON THE COMPETITION

Much is made of the rivalry between Commodore and the firm it spawned – Atari. Behind the scenes you can just imagine Gleadow grinning every time Commodore (or indeed Amstrad) fumbles the ball.

And of course Mr Franklin (Commodore) and Mr Sugar (Amstrad) will also have a good chuckle when Atari trips over its own ambitions. Such is the nature of intense competition – but you'll never get any of them to admit it.

"It never crosses my mind. Every step we take is to look at what we think is good for us in the market. We're not interested in what everyone else is doing because we don't have their logic." A little dig there. Gleadow then goes on to claim that Commodore is obsessed with Atari.

And Amstrad? "The minute Atari starts looking at what Amstrad is doing and we follow that, we immediately relegate ourselves to being behind Amstrad, because we're looking at what he does. Instead we are looking at what we can do that is good for us.

"If you're in a car race and you start to follow someone, or you look in the mirror and see what everyone else is doing, then it starts to distract you from driving as fast as you can. We're into driving as fast as we can ."

But surely you can't ignore your competitors? "There's nothing they can do which specifically influences anything we do. It might cause us not to something. For instance, if we were planning a headline and then Amstrad went out and did it before us, then we would scrap it, that kind of thing."

GLEADOW ON CD

Given that Atari introduced a CD-ROM device three years ago, it may come as a surprise that Gleadow does not share the enthusiasm expressed by much of the market.

When will we see Atari introduce an all-in-one CD ST device akin to the much publicised Amiga machine? After all, isn't CD where it's all happening?

"Is Compact Disc happening? You're looking at a man who has had Compact Disc players in his warehouse for 18 months now. Where is the software commitment? Show me a CD standard. Is it CD-I?

"Look at the MSX. That had a Laserdisc which gave you the best graphics I've seen. It was true video with a computer image superimposed. Outside of Japan it didn't do very well..."

He turns on the notion of CD/computer combos. "They're going to cost £600 or £700. How big is the market opportunity at that price range? We think computer buyers should become CD buyers. It's better to offer computer buyers the CD as an extra rather than offering a highly-priced integrated system."

GLEADOW ON THE PRESS

While Commodore and Amstrad generally like to wait for things to happen before announcing them, Atari is constantly toying with the press – hinting, leaking, suggesting and otherwise making implications. It sometimes moves into the realms of absurdity, although for those with a vested interest in information (like magazine news editors) it's all rather jolly.

Uniquely, Atari isn't so much concerned with the public's perception of it as a company, rather with the perception of each individual project.

This has the effect of providing magazine readers with lots of juicy titbits from 'highly-placed sources' as well as supplying Atari's formidable PR machine with cheap market research.

Doesn't this take, well, a certain degree of manipulation of the press? Gleadow is suitably shocked at such a suggestion. "I wish we could manipulate the press," he jests. And he is jesting.

COMPUTERS
SADDLER
COMMUNICATIONS

Mail Order Dept. Trading Hours
Mon To Fri 9.00 am to 1.00 pm
(Lunch 1-2) 2.00 pm to 5.00 pm
Saturday: CLOSED

TELEPHONES:
Ashton-in-Makerfield
(0942) 720867 and 711821
Facsimile: (0942) 271226

SADDLER COMPUTER SERVICES LTD, 340 HAYDOCK LANE, HAYDOCK, ST. HELENS, LANCASHIRE WA11 9UY

PERSONAL COMPUTER CENTRE of the NORTH WEST

AMSTRAD CENTRE

COMPUTERS	MONO	COLOUR	ENH.COLOUR	
1512-SD	394	482		
1512-DD	481	562		
1640-SD	488	589	688	
1640-DD	557	659	758	
1640-HD (30)	751	852	949	
2000 RANGE	12"VGA MONO	14" COL	12"HRC	14"HRC
2086-SD	579	674	769	863
2086-DD	649	739	839	932
2086-HD 30M	833	923	1024	1117
2286-DD	860	944	1037	1124
2286-HD(40)	1014	1098	1191	1278
2386-HD(65)	1699	1783	1876	1963

PORTABLES

PPC 512S	376
PPC 512D	485
PPC 640S	457
PPC 640D	578

FREE MOTOROLA 9500X CELLPHONE

WORD PROCESSORS

8256	339
8512	429
9512	463

ALL THE ABOVE PRICES INCLUDE
12 MONTHS ON SITE MAINTENANCE

DISC DRIVES

FD4 2nd drive for Word proc	115
FD7 3.5" 1.4m Int (for 2286)	139
FD9 3.5" 1.4m Ext drive	149
FD10 5.25" 360K Ext drive	139
FD11 5.25" 1.2MB Ext 2286/2386	149

VGA MONITORS

12" Mono	115
14" Colr	199
12" HRC	292
14" HRC	379

SOFTWARE

Wordstar	76
Super Calc 3.21	77
Accounts Master	115
Pay Master	38
Infomaster	55
Dbase III	76

PRINTERS

DMP 3160	109
DMP 3250 DI	112
DMP 4000	169
LQ 3500 DI	189
LQ 5000 DI	299

AMSTRAD FX9600T
FAX ONLY £525

PSION

ORGANISERS

CM(11) 2 line	65
XP (11) 2 line	85
LZ (11) 4 line	107
LZ 64 (11) 4 line	136
Printer Dot Matrix	159
32K Rampak	39
32K Rampak	25
64K Rampak	45
128K Rampak	73
Mains Adaptor	9.46
Travel Pack (Rom only)	29.50
Formatter	36.00
Portfolio (Rom)	29.50
Spellchecker (Rom)	21.88
Spreadsheet (Rom)	29.00
Maths Pack (Rom)	22.00
Finance Pack (Rom)	22.00
Harv Data Org (Rom)	27.50
Harv Finger Org (Rom)	27.50
Harv Letter Org (Rom)	27.50
Leather Carry Case	8.83
Mobile Computer 128K	466
Mobile Computer 258K	726
Mobile Computer 768K	1275
Flash 128K S.State disk	59
Flash 256K S. State disk	99
Flash 512K S. State disk	163
RAM 64K	49
RAM 128K	85
3.5" Ext disk drive	164
Mains Adaptor	13.00
Nicad Battery Cartridge	22.00

COMMODORE PC STARTER PACKS

MODEL	Mono 1402 12"	Col 1084 14"	Mono VGA 1403 14"	Col VGA 30MG 809 14"
PC10 Single Drive	489	625	646	729
PC10 Double Drive	534	668	685	773
PC20 20MB Hard Disk	685	799	859	949
PC30 20MB Hard disk 'AT'	–	–	996	1159

ALL BUNDLES INCLUDE

INTEGRATED BUSINESS SOFTWARE
MS DOS TUTOR, TYPING TUTOR,
A-X OF COMPUTER JARGON
ON-SITE MAINTENANCE

STAR PRINTERS

MODEL	PINS	COL'S	SPEED	COST
LC10P	9	80	144/36	129
LC10IIP	9	80	180/45	145
LC10PC	9	80	144/36	168
LC15P	9	136	180/45	268
FR10P	9	80	300/76	299
FR15P	9	136	300/76	393
LC24-10P	24	80	170/57	199
LC24-15P	24	136	200/67	335
XB24-10P	24	80	240/80	395.
XB24- 154P	24	136	240/80	519
Laser 8			8PPM	1229
Laser 8 II T			8PPM	1598

SCHNEIDER PORTABLE 'AT
SADDLER PRICE ONLY £1595.00
RRP 1834.24

ARCHIMEDES A3000
A3000 Base + Philips CM8833
ONLY £872

ALL PRICES EXCLUDE VAT AND CARRIAGE

E & OE ALL PRICES AND MANUFACTURERS SPECIFICATION SUBJECT TO CHANGE WITHOUT NOTICE

FULL RANGE OF SOFTWARE PRINTERS ACCESSORIES AVAILABLE. RING FOR DETAILS

DELIVERY UK MAINLAND

PRODUCT	NEXT DAY	4 DAYS
Hardware	£12 PER BOX	£7 PER BOX
Software	£8 PER BOX	£4 PER BOX

Consumables £5 plus post and packing

(FROM GOODS BEING IN STOCK)

PAYMENT
ACCESS, VISA
BY CHEQUE:
Goods despatched when cheque cleared, express clearance charge

THE PEOPLE TO DO BUSINESS WITH

SHOP TRADING HOURS:- MONDAY 2.00PM - 5PM, TUES TO FRI. 9.00AM TO 1.00 PM (LUNCH 1-2) 2.00 PM TO 5.00 PM. SATURDAY 9.00 AM TO 4.30PM

EXPRESS MAiL

Britain's liveliest computing forum – packed with comment, controversy and conflict. Write and tell us what you think! Reach us at: *Express Mail, 30 Monmouth Street, Bath BA1 2AP.* Sorry, no personal replies. This week's replies written by Martyn Lester.

Rave from the grave

I sold the computer to which I refer many moons ago, but here is my contribution to the 'my-computer-was-better-than-yours' argument.

- My computer had a waterproof, wipe-clean keyboard.
- My computer was coloured in super-stylish, cool black.
- My computer was the first to have switchable speeds.
- If you put your coffee in the right place on top of my computer, it could keep it hot for hours.
- It had a freely accessible expansion port (none of this under-the-computer business for my computer).
- It was small enough to be a laptop if you had a lap big enough to fit a TV on.
- Its power consumption was so low, so very very low that I had it running for an hour on a single 9V PP3 battery.
- The power pack could keep your feet warm even in the coldest of rooms.
- Absolutely none of the Ben Elton 'Farties' bought one.

The computer to which I refer is, of course, the noble Sinclair ZX81.

Mark Beevers, Castleford, West Yorkshire.

Plus, says our office aficionado, the best of all versions of *Galaxians*. Not to mention the fact that Sir Clive still regards it as his favourite computer. And he should know.

Varsity challenge

This is a letter that needs to be written, but I am not trying to upset anyone – just bring a few things to the attention of the the people who write my-computer-is-better-than-yours letters.

The things which make a successful computer are: enough quality software which is useful and easy to use; a large user-base; and fast reliable hardware. A lot of very good PD shows that there are experienced, dedicated programmers using the machine.

For desktop publishing, I hope you have access to a laser printer or cheap laser printing services and also a lot of memory and a very large, fast, hard disk.

For music, I hope you have access to MIDI keyboards and MIDI equipment and lots of it, for serious music-making requires it.

For graphics, you need a very high resolution multi-sync monitor and a few transputers or graphics co-processors. I am not talking about the future, I am talking about ray-tracing and 32-bit colour, right now.

For serious computing, you must have 4Mb before you count the memory for graphics, digital sound and data, and enough expansion slots so you don't run out of room for the 'necessary' hardware.

This may sound funny to a lot of you. I am not knocking computing as a recreational pastime, but think about what kind of computer you need to do professional work. This is what I mean by serious. Don't pretend you are a serious computer user until your computer needs to be faster just so that it won't inconvenience you. Don't pretend to be what you are not.

If you need to mult-itask more than two big applications at one time you are a serious user. A serious working arrangement for one-man DTP in my books is multi-tasking a wordprocessor, an art package, a DTP system and a few other necessary utilities for macros and such.

This requires, by my reckoning, about 8Mb to be convenient, and that isn't including some good hardware. I am not implying that DTP is not a good application for computer users, just that everyone seems to think that its the best thing since sliced bread.

All anyone 'needs' is a computer which does everything that he or she needs to be done by computer. But serious computing is in another realm from using an ST at home to do a lot of different little tasks (not multi-tasking), and some people don't seem to realise this.

Many people can't seem to separate what they want their computer to do (usually in some incredible fantasy), and what they need the computer to do for them in a way that is cheaper and more convenient than any other.

Cade Roux, Gonville & Caius College, Cambridge

I think you have both added perspective to the debate and (to mix metaphors – I am sorry) muddied the waters at the same time.

Yes, the rivalry between owners of various models seems petty judged by the standards of people who have to carry out complex and memory-consuming tasks. And, indeed, it is petty.

I find it difficult to understand why people who are pleased with their computers need to validate their ownership by knocking someone else's machine – it smacks of insecurity and most probably immaturity.

You cloud the issue by attempting to differentiate between serious and frivolous users on the basis of their computers, and as such you are falling into a very similar trap to people you criticize. You are in danger of replacing the 'my computer is better than yours' squabble with the 'my work is more serious than yours' debate.

There are plenty of musicians using the ST in the course of earning their living. There are plenty of good writers who work on the 'humble' PCW and whose livelihoods depend on it. They are all 'serious' computer users.

You put your finger on the nub of the matter by stressing the word 'need'. The sort of people I refer to above have machines which will do all that their owners need them to, and setting arbitrary RAM sizes as a measure of 'seriousness' is no more than a distraction from the real question of matching the equipment to the demands of its user.➤

What about the workers?

I feel that I really must write and congratulate you on your publication's support of the 'Ant-Hacking' Bill (*Express* 68). This is the first time that the disgusting practice of dismembering small, hymenopterous insects had come to my attention and I believe that it should be stamped out.

There are, however, a few things that puzzle me.

Firstly, why is this behaviour restricted to computer users – is it something to do with the 'bugs' that we hear about? Secondly, where would you find an axe small enough to carry out the aforementioned hacking? Perhaps you could spread some light on the subject.

Anyway, it seems like a very emotional subject and I have no intention of stirring up antagonism by pouring boiling water on it.

Your article further mentions the existence of "bedroom hackers". I expect that it is due to their guilt that they feel it necessary to carry out this horrendous activity in the seclusion of their own bedrooms. Think of their poor mothers trying to remove the stains from their sheets and emptying waste baskets full of dismembered limbs.

The sooner Colvin Bill gets his act on the committee stage the sooner law-abiding ants will be able to sleep in their beds without the fear of being hacked around.

Neil Traylen, Home for the Easily Amused, Camberley, Surrey

I blame the whole problem on Cinemaware for putting all of those ants into *It Came From The Desert*. Unwitting gamers bought the thing from Mirrorsoft, and the next thing they knew there were overgrown formicidae all over the option.

• **It Came from the Desert:** *started all the trouble?*

Disks Disks Disks Disks

NEW MOUSE MATS
(Range of Colours)
£2.60
NEW MOUSE POCKET
£2.95

LOCKABLE STORAGE BOXES

3 1/2"	40 Capacity	£4.95
3 1/2"	80 Capacity	£5.75
5 1/4"	70 Capacity	£5.75

3 1/2"

Quantity	10	25	100	1000
DS/HD 2Mb	£1.38	£1.38	£1.15	POA
135tpi 1Mb	£0.46	£0.44	£0.43	POA
DS/HD Preformatted	£1.50	£1.44	£1.38	POA

5 1/4"

Quantity	10	25	100	1000
DS/DD 1.6Mb	£0.46	£0.44	£0.42	POA

All prices include VAT and Carriage
All prices are per disk
All 3.5 disks come complete with labels
All 5.25 disks supplied with Write Protect tabs, labels and envelopes

NO QUIBBLE REPLACEMENT OR MONEY BACK GUARANTEE

MV

To:
Media Value
Venture House, Dept NCE
212-214 Farnham Road
Slough, Berks SL1 4YL

☎ (0753) 32445
Fax (0753) 511536

I enclose a cheque/PO for ....

My Computer is ....

PLEASE PRINT CLEARLY

Quantity	Description	Price
	TOTAL	

Name ....

Address ....

.... Post code ....

Tel .... E&OE

CS0290

PD & SHAREWARE
who do you get yours from?

BRITAINS No.1 PD Service

There are many PD libraries around but do they offer you....
☆Huge collection, thousands of programs on over 3000 disks
☆Same day service - 1st Class post - GUARANTEED
☆Knowledgable staff on hand (no 'phone after six and ask for fred'!)
☆Three years experience collecting and distributing PD & Shareware to satisfied customers all over the world.
☆FREE 30 page catalogue, S.A.E (28p stamp) and state MAKE of computer CLEARLY and we'll rush one to you by return.

AMIGA

Currently over 800 disks in our catalogue, including Fred Fish, APDC, AMICUS, PanoramA etc. Our own SOF collection is so good other libraries stock them now and of course we are exclusive distributors of the fabulous UGA disks. All are auto-boot, menu driven and so very easy to use, probably the best collection available! We also run an Amiga Club, ask for details.

ATARI ST

We currently stock over 800 disks full of PD/Shareware for these machines, containing every imaginable type of program! Choose from ALL the Public Domain, not just "a selection". If you are new to ST'ing why not join "Clubville", our popular user group, £6:50 gets you newsheets, offers, special prices on goods, 5% Off blanks/PD etc.

IBM PC
(and compatibles)

Thousands of the most popular Public domain and Shareware programs in our current catalogue, all available on either 3.5" or 5.25" format, if ordering (opposite) state which. Whatever type of program you may require, we've probably got it.

MEGA PACK - £19:50 (£14:50)
5 PD disks + 5 blank disks
plus a Library case
(Selection of current popular titles),
INTRO DISK - £1:50
(Atari or Amiga only)
VIRUS KILLER DISK - £1:50
(state machine clearly)
(prices in brackets for 5.25" disks, state preference)

24 Hour orderline on
0705-266509

VISA

SOFTViLLE

Unit 5, Stratfield Park,
Electra Avenue, Waterlooville,
Hants. PO7 7XN

MERLIN COMPUTERS

OUR PRICES ARE MAGIC

AMIGA 500 ONLY £379.00 INC BATMAN PACK

ATARI 520 STFM POWER PACK £359.99

TRY THE ST's MIDI POWER

CASIO MT 240 AN EXCELLENT LOW COST MIDI KEYBOARD £89.99
OTHER CASIO KEYBOARDS ALSO AVAILABLE

1 MEG 3.5" DISK DRIVES ST AND AMIGA £85.99
ATARI STFM 1 MEG INTERNAL DRIVE UPGRADE £74.99
1 MEG INTERNAL DRIVE FOR AMSTRAD 1512/1640 ....£85.99
The above drive is an easy to fit 2nd drive complete with mounting tray/facia

STAR LC 10 COLOUR PRINTER £215.00
STAR LC10 MONO PRINTER £169.99
STAR LC10 COLOUR HEAT TRANSFER RIBBONS - IDEAL FOR PRINTING YOUR OWN T-SHIRTS ETC £17.99

BLANK DISKS AT AMAZING LOW PRICES

10 3.5" DS/DD life time guaranteed £7.50
10 5.25" DS (per 10) £3.50
Bulk buyers please phone for bulk prices

WE STOCK MANY ITEMS NOT LISTED HERE PLEASE PHONE FOR ANY ITEMS NOT LISTED
All prices include VAT and P & P
PLEASE NOTE ATARI 8-BIT OWNERS WE SUPPORT YOU
PLEASE PHONE FOR DETAILS

VISA

MERLIN COMPUTERS
154 Uplands Ave., Connah's Quay,
Deeside, Clwyd. CH5 4LG
Tel: 0244 821843

Budgie licences

Following the letter of Simon Daniels (*Express* 69) you asked someone to throw some light on licenceware. Well, I think I have some authority on the matter as I was one of the guys involved in setting up one of the first schemes on the Atari ST.

I help run Budgie UK, the cheapest provider of decent games for the ST. In fact, we now manage 37 varied titles, including shoot-'em-ups, simulations, adventures and strategy-based products.

The initial idea came from the ST Club and basically runs along the following lines:

• Library: A PD library obtains a written licence from Budgie UK to sell our games and agrees to pay 15p for each game disk that it sells; a serious disk costs the library 50p.

After three months the library counts up the total sales and sends a cheque for that sum.

A minimum fee of £15 per quarter is payable and, if necessary, the library must make up the difference.

• The author's representative: In this case Budgie UK. We check the new disks received from the authors to make sure that things work and are good enough to be enlisted and distributed.

We then send these disks to the library and, when fees are received, divide the money according to the number of titles each author has under the scheme.

In December, when this was last done, Gary Wheaton, who wrote four titles, got about £70 for the three-month period. It's not going to make anyone rich, but it would pay for a memory upgrade or some new books.

There are currently 21 libraries enlisted by Budgie and one of them is in Australia, while the now-famous Andrea Ramos handles the whole of Scandinavia.

We think licenceware will catch on once more people find out about it. By the way, it is up to the PD authors to write to us and see if we will handle the distribution for them.

Indeed, Budgie has just started to accept more serious titles, which include an electronic bank statement and sprite package. These more serious titles are sold for £3.95 while games are £2.95.

Please send an SAE, for a list of libraries covered by the scheme, to Budgie UK, 5 Minster Close, Rayleigh, Essex, SS6 8SF.

Amiga authors are advised to write to PD-Soft which is a new PD service starting up such a scheme for anyone interested – demo writers, game creators, anything at all.

This is a new PD library which specialises in demos for the Amiga. Please write to PD-Soft, 1 Bryant Avenue, Southend-on-Sea, Essex, SS1 2NY.

Sandra Bright, PD-Soft, Southend-on-Sea

I like the sound of this wheeze, I must say. PD is clearly struggling to live up to the 'no profit for anyone' ideals of its conception, and at least licenceware realistically accepts that some libraries are run on a professional or semi-professional basis.

As long as product is kept at budget prices, somewhere close to the levels already charged for PD, schemes such as this one may provide an extra rung on the ladder for aspiring software professionals. Product will be cheap enough to sell and get them noticed, while the modest remuneration involved is also an incentive to produce programs which are up to scratch.

Let's hope it catches on and provides an extra source of low-priced but reasonably-impressive products.

Work your way up

The debate that has started in *Express* Mail recently concerning jobs in the computer industry is very timely. With the falling numbers of school leavers and the importance of IT to the future of this country, it is essential that the issue is addressed straight away.

If the Government is as committed to furthering Britain's computer literacy as it would have us think, then it must put its money where its mouth (policy) is. It must encourage mature people, like Neil Foster (*Express* 69), who are genuinely enthusiastic about computing work, and implement a 'workable and realistic' scheme for training people with the prospect of decent jobs on completion of courses.

In schools, both equipment and staff need to be near state-of-the-art, which is very far from the case at present. In the school where my wife teaches they are the proud (eh?) owners of three Nimbus and three BBC Bs and what little software they have is hardly exciting. This is not going to instil a sense of technical excellence in the little treasures is it?

For those older people seeking work in IT, I can only offer these words of encouragement: I am 38 years old and have been applying for jobs in computing, on and off, since 1982. All my experience was in an unrelated field but, through the introduction of computers in my place of work, I got the chance to get involved.

After a couple of years a job in support, within the same company, was circulated and I applied successfully.

I am now in the process of moving to another employer with whom I shall have what I consider to be an excellent job in applications support. I now think of myself as an IT professional which was my goal from the start.

The point is this, sometimes there has to be a compromise. Go for the nearest thing to what you want, and wait for the next opportunity.

A final thought, most of the employers I have encountered have been as interested in my commercial and business experience as in my computing skills – so no experience is wasted.

Just keep on keeping on, as they say in Motown.

Steve Laing, Windsor, Berks.

It does make a change to hear an encouraging tale, and I go along with your assessment. For next week, though, I already know of one reader who wants to call me a loony lefty. Any more contributions to the work and training debate?

Humour in uniform

Letter to be read in the voice on an ex-army colonel who served in India and likes pink gin.

"I was shocked and amazed by Neil Foster's comments in *Express* 69. Imagine having the tenacity (that means cheek, Mr Foster) to criticise our Government and its glorious leader over unemployment. It must surely be his own fault for not having job experience.

Moaning and complaining...I don't know...

What he needs is a kick up the backside and a year in the army. That would sort him out. Long live Maggie! I have only one thing left to say to Mr Foster and that is: Get on your bike."

PS Sorry about the crayon – we're not allowed sharp objects in here and my printer's slightly broken.

Dooby Dolan the Psycho Duck, Zappaland, Barking Madshire.

The army is far too good for these people. Put them in the stocks, pelt them with rotting vegetables, give them a good birching and then string 'em up – that's what I say.

Now can I have a job with a Latin American government, please?

By the way, the word for cheek that you are trying to think of is 'temerity'.

The mind machine wasn't Soviet after all

Regarding your article entitled 'Soviet mind micro on sale in States' in *Express* 64, may we make the following points:

- **The MC² was developed by Light and Sound Research Inc, Scottsdale, Arizona**
- **The MC² has been sold nationally in the US since 1987 and internationally in Europe and abroad since 1988.**
- **Light and Sound Research has not licensed its technology to any company or country.**
- **Light and Sound Research has signed a protocol with the Electroacoustical Centre of the USSR Academy of Sciences (Echo) in Moscow.**

Terms of the protocol state Echo will have the opportunity to manufacture and market the MC² non-exclusively world-wide including Soviet and Eastern European markets.

- **The MC² accesses hertz frequencies from 13+Hz to 4Hz, focusing the majority of the time within the 4-7Hz range known as the Theta state.**

Lynn D Gillen, Director of Advertising, Light and Sound Research

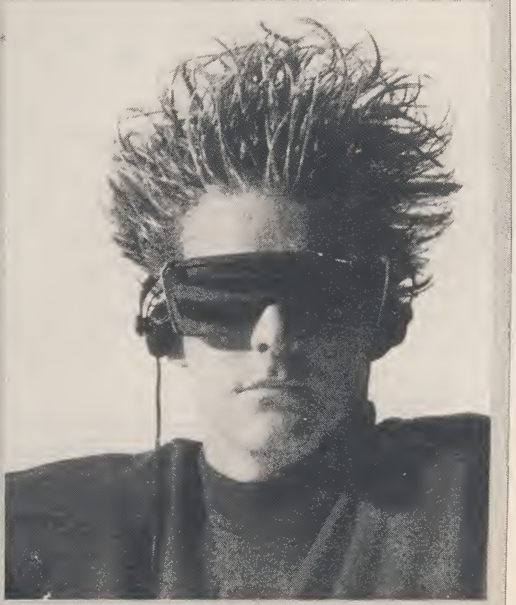
Whoops! After a lot of back-tracking I have nailed down the boob to an ambiguously worded on-line news story from a US bureau which referred to a protocol with Echo 'under which Light & Sound will manufacture its 'mind machines' in the USSR...'

We mistakenly attributed the 'its' to Echo, hence the misunderstanding of which direction the technology was moving between the signatories.

It was sloppy work, though. We own up. You have us bang to rights. Our only consolation is that at least one other UK magazine made precisely the same error, proving at any rate how easily these things are done.

We are pleased to say that we have now been contacted by a UK outlet for the MC², and hope soon to strap our News Editor into a review model, though we are not sure if wearing the device will improve his skateboarding.

Call Wilgro Importing and Exporting on 091-477 0930 for details.



• MC²: all Arizona's own work

The subject of astrology and predictions has generated more letters over the last few months than any other barring the 'my machine is better than yours' saga.

Ex-editor Rob Ainsley called it "old tosh", then it was riduculed again in my name a couple of weeks ago. A number of readers disagree.

■ On prediction

I think I have the right to say that I can speak with some authority on the subject of predictions as this is something that I did for some years.

Astrology seems like a very hard way to analyse and predict. I used numerology, hand-reading, the Tarot, dowsing and the I Ching. Actually, none of these methods are really necessary to know. I can look into someone and tell them what is wrong with them or if they are healthy.

I have not done this for some time now, as I found that people were looking for easy answers and the truth is that the best way to know the future is to strive to live well today. If you do this, then the future does not matter, for you will have peace of mind.

There are ways in which it can be helpful, though. I will give you an example. If you look at your wrists you will see three rings around it at the base of the hand. These rings, called the bracelets, are of value to women. If the first bracelet has an arch upward into the hand, it warns of difficulty in child birth.

I saw this in a lady whose hands I read and warned her against pregnancy. I advised her to seek medical advice in this matter. She did so and was able to confirm the advice that I gave her.

Perhaps it may help you to know that I feel that the best astrologers are good psychics anyway, and do not need the charts, but they do not have the courage to do without them.

From my own experience, I just used the hands as a link to get started. If I could achieve this link, then whatever came into me came easily.

I have used pendulums to find a lost dog which I tracked across the countryside from Hickling to Acle. I did this using map dowsing.

Because I could not travel, I rang the owner's friend to tell him that the dog had reached Martham. I told him where to look and he got in his car and went there. This was Saturday night and it was getting dark, so it was no surprise when he rang me to say he could not spot the dog.

I did not mind, though, as I had a picture of the dog laying outside the corner of a lawn by a house with a wall around it, so I knew that she would be returned.

This is what happened, exactly as I saw it. The house was in Acle and the route that I traced on the map was correct.

I cannot convince anyone that astrology works, as I have never used it. I do know that the future can be seen. I also know that the future can be changed. It is not fixed. This is important to understand.

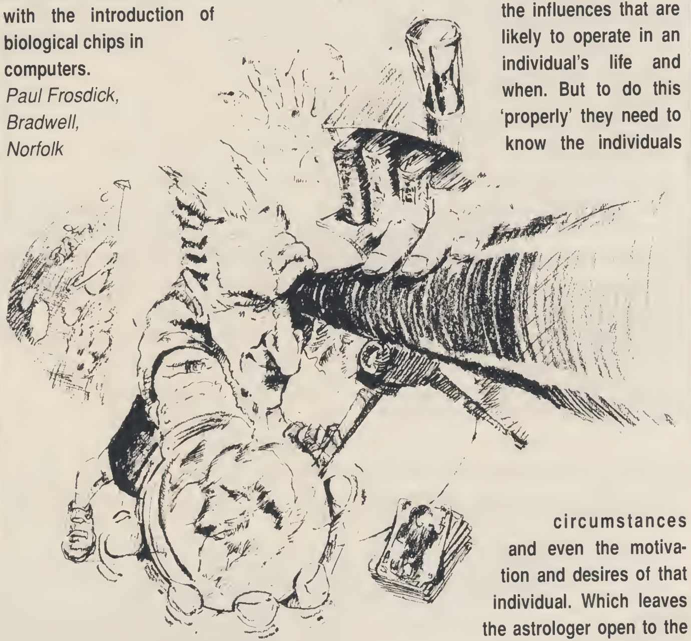
It is as if you were driving a train and you received a signal telling you that the bridge in front of you had collapsed. A wise person would act while there was still time. A fool would rush head-long into danger. For me this has been the only real value of prediction. Helping others to avoid pain.

One more thought on astrology. It is not possible to produce a program that could make accurate predictions. This is entirely dependent on the 'instinct' of the person interpreting the chart.

All that a program could do is give guidance, as an expert system can help a doctor. The program cannot take the place of the doctor, nor could it in the case of an astrologer.

As yet, only animals, including man, can sense the importance of one factor over another. Perhaps things may change with the introduction of biological chips in computers.

Paul Frosdick, Bradwell, Norfolk



■ The real astrology

Our company, Astrocalc, has advertised fairly often in *Express*, as well as advertising regularly in *ST Format* and *8000 Plus*, and it has been selling and advertising in the computer press since 1982.

I point this out because you say that astrology is a load of bull and, as far as that which appears in most newspapers and magazines goes, I entirely agree with you. But then, that is not real astrology. What is real astrology?

To set the record a little straighter, the latest research would indicate that Newton probably didn't believe in astrology and the comment to Halley that reputedly had astrological overtones was probably never made.

Furthermore, the researches of Nelson into the influence of the planetary aspects on the radio reception have now been largely discredited, despite the high commendations that he received from many institutions, including the American weather bureau and NASA. What is more, both of these re-thinks are the result of work by real astrologers.

Indeed, the only astrological work which has stood up to scientific scrutiny is that by the French psychologists, Michel and Francoise Gauquelin. Their work has withstood scrutiny by scientists of all 'denominations', including those belonging to CSICOPS (the Committee for the Scientific Investigation of Claims of the Paranormal).

The Gauquelin work shows that exceptional individuals are more likely to be born with certain planets near the four angles of the chart – ie, when they are rising, setting, culmination or at the IC. Different planets are prominent for different types of individuals and the results are not always in accordance with tradition. Mars is prominent for athletes, the Moon for writers, Mars and Jupiter for the military, Jupiter for politicians, etc.

In forecasting, astrologers should be able to give an idea of the influences that are likely to operate in an individual's life and when. But to do this 'properly' they need to know the individuals circumstances and even the motivation and desires of that individual. Which leaves the astrologer open to the charge of merely feeding back to the individual what he wants to hear. In addition to this psychological influence in astrology, there is also the issue of free will.

If you are told that you are likely to be in a quarrelsome mood and find that you are, and then you are careful not to quarrel with people, are you exercising free will or is it an illusion? Further, are you proving astrology or disproving it? After all you were told you would quarrel with everyone and you haven't.

There are computer programs which interpret charts. Yes, there are computer programs which will predict your future. How accurately? This can vary with the individual concerned and there should be no programs which claim absolute precision. Better still are those programs which allow the output to be modified before printing out, to take account of individual circumstances.

Would we let *Express* test them? No, we don't think that you have the time or expertise. What we would suggest is that you concentrate on computers and do more 'comparative' research between types of computers.

How about telling your readers how long AmigaDOS takes to load a disk, or how many disk swaps you might make in doing that simple exercise?

We have written programs for many computers – we still have more than 25 different makes – and have grown to love them all. I even sort of love the Amiga. But to make it 'best buy' as you did at the end of last year! Come on now, tell it like it is.

Colin Miles, Astrocalc, Hemel Hempstead, Herts

■ Common sense

Your remark in the January 27 issue cracked my resolve.

You said: "I don't see how a bunch of stars billions of years away can affect my life." Well, of course you can't; because they don't. But let me ask you a question.

How does a thermometer affect the temperature in a room? The answer is, of course, that it doesn't. What happens is that certain events take place – a fire is lit, a door opens, etc – the physical manifestations of which seem to be closely linked.

Some of these manifestations can't even be seen, let alone measured – but some can. We can use those phenomena we can see in order to understand and measure those we can't. (When we look at a thermometer we say we are measuring temperature. We are not – we are measuring the changes in a column of mercury.)

On a more complex scale, 'things' are happening in the universe, the manifestations of which are inextricably linked. Some of these can't even be seen, let alone measured and understood – but some of them can. Is the penny beginning to drop? That's right, the shape of the universe is not the cause of what is happening within it but the reflection.

The fact is that something is happening in this universe and you don't have to be an Einstein or Mandelbrot to begin to see what it is. I'm not saying that this 'something' has meaning or significance. My view is that it means sod-all.

Nevertheless, the universe is unfolding around us and it behoves us with any scientific inclination to simply observe what is going on without prejudice.

David Cooke, Stoke, Coventry

There is a positive use for any genuine attempt at individual character analysis, in that it encourages people to examine their strengths and weaknesses, if only to see how far they agree with what has been said or written about them. If astrology helps, fine.

But note that I say 'individual'. Categorising people into only 12 character archetypes based on their month of birth – which the more idiotic so-called astrologers do – is about as useful as a fortune cookie.

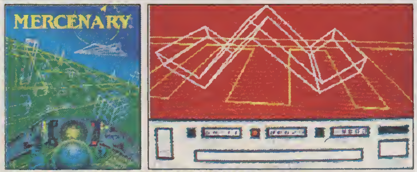
The horoscopic superstition printed in the daily newspapers is not simply tripe – it is positively dangerous. People should attempt to take control of their own destiny. It is not easy to do, and encouraging the idea that folk might as well give up because their lives are predetermined is irresponsible.■

FREE! TENSTAR PACK WORTH OVER £229!

FREE! - **AMEGAS** - by Players

FREE! - **INSANITY FIGHT** - by Microdeal

FREE! - **ART OF CHESS** - by SPA


FREE! - **MERCENARY COMP** - by Novagen

FREE! - **BARBARIAN, ULT WARRIOR** - by Palace

FREE! - **TERRORPODS** - by Psygnosis

FREE! - **BUGGY BOY** - by Elite

FREE! - **THUNDERCATS** - by Elite

FREE! - **IKARI WARRIORS** - by Elite

FREE! - **WIZBALL** - by Ocean

Commodore AMIGA

ONLY
£3.34 PER WEEK
RETURN COUPON FOR DETAILS

£346.95

+VAT=
£399
INCLUDES FREE UK DELIVERY

The Amiga 500 is one of a new breed of technologically advanced computers, which are now emerging as the new standard for home computing, based around the new Motorola 68000 chip. The A500 has 512K RAM and a 1Mbyte double sided disk drive built-in. It can be connected directly to a wide range of monitors, or to a domestic TV set through a TV modulator. Designed with the user in mind, the A500 features a user friendly WIMP environment and comes supplied with a free mouse. And, when you buy your Amiga from Silica Shop, the UK's No1 Amiga specialists, you will experience an after sales service that is second to none, including a technical support helpline and free newsletters and price lists. Return the coupon below for our current information pack, which will give details of the Silica service and the very latest Silica Amiga offers. E&OE.

WHY SILICA SHOP?

Before you decide when to buy your new Commodore Amiga computer, we suggest you consider very carefully WHERE you buy it. There are MANY companies who can offer you a computer, a few peripherals and the top ten selling titles. There are FEWER companies who can offer a wide range of products for your computer as well as expert advice and help when you need it There is ONLY ONE company who can provide the largest range of Amiga related products in the UK, a full time Amiga specialist technical helpline and in-depth after sales support, including free newsletters and brochures delivered to your door for as long as you require after you purchase your computer That one company is Silica Shop We have been established in the home computer field for ten years and can now claim to meet our customers requirements with an accuracy and understanding which is second to none. Here are just some of the things we can offer you.

THE FULL STOCK RANGE: The largest range of Amiga related peripherals, accessories, books and software in the UK.

AFTER SALES SUPPORT: The staff at Silica Shop are dedicated to help you to get the best from your Amiga.

FREE NEWSLETTERS: Mailed direct to your home as soon as we print them, featuring offers and latest releases.

FREE OVERNIGHT DELIVERY: On all hardware orders shipped to Silica Shop customers within the UK mainland.

PRICE MATCH PROMISE: We will normally match our competitors offers on a 'same product same price' basis.

FREE TECHNICAL HELPLINE: Full time team of Amiga technical experts to help you with your technical queries.

But don't just take our word for it. Complete and return the coupon below for our latest Amiga literature and begin to experience the Silica Shop specialist Amiga service.

PHOTON PAINT PACK

A500 Computer	£399.99
TV Modulator	£24.99
Photon Paint	£69.95
TenStar Pack	£229.50
TOTAL RRP:	£724.43
LESS DISCOUNT:	£325.43
PACK PRICE INC VAT:	**£399**

1084S MONITOR PACK

A500 Computer	£399.99
1084S Colour Monitor	£299.99
Photon Paint	£69.95
TenStar Pack	£229.50
TOTAL RRP:	£999.43
LESS DISCOUNT:	£350.43
PACK PRICE INC VAT:	**£649**

FREE FROM SILICA

When you buy the Amiga 500 from Silica Shop, you will not only get a high power, value for money computer, we will also give you some spectacular free gifts. First of all, we are now including a TV modulator with every A500 stand alone keyboard, so you can plug your Amiga straight into your TV at home (the modulator is not included with the A500+A1084S pack as it is not required for use with monitors). Secondly, we have added a free copy of Photon Paint, an advanced graphics package with an RRP of £69.95. Last (and by no means least!), so that you can be up and running straight away, we are giving away the sensational TENSTAR GAMES PACK with every A500 purchased at Silica Shop. This pack features ten top Amiga titles which have a combined RRP of nearly £230! *Return the coupon* for details.

FREE TENSTAR PACK

When you buy your Amiga 500 from Silica Shop, we want to make sure you get the best deal possible. That is why we are giving away the TENSTAR GAMES PACK worth nearly £230, absolutely FREE with every A500 purchased from us. The TenStar Games Pack includes ten titles for the A500, each individually packaged in its own casing with instructions.

Amegas	£14.95
Art Of Chess	£24.95
Barbarian, Ult Warrior	£19.95
Buggy Boy	£24.95
Ikari Warriors	£24.95
Insanity Fight	£24.95
Mercenary Comp	£19.95
Terrorpods	£24.95
Thundercats	£24.95
Wizball	£24.95
	£229.50

TOTAL RRP: £229.50 INC VAT

DO YOU OWN AN AMIGA?

If you already own an Amiga computer and would like to be registered on our mailing list as an Amiga user, let us know. We will be pleased to send you copies of our price lists and newsletters FREE OF CHARGE as they become available. Complete the coupon and return it to our Sidcup branch and begin experiencing a specialist Amiga service that is second to none.

SILICA SHOP:

SIDCUP (& Mail Order) 01-309 1111
1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX
***OPEN:** MON-SAT 9am - 5.30pm* ***LATE NIGHT:** FRIDAY 9am - 7pm*

LONDON 01-580 4000
52 Tottenham Court Road, London, W1P OBA
***OPEN:** MON-SAT 9.30am - 6.00pm* ***LATE NIGHT:** NONE*

LONDON 01-629 1234 ext 3914
Selfridges (1st floor), Oxford Street, London, W1A 1AB
***OPEN:** MON-SAT 9am - 6.00pm* ***LATE NIGHT:** THURSDAY 9am - 8pm*

To: Silica Shop Ltd, Dept NCE 0390 1-4 The Mews, Hatherley Road, Sidcup, Kent, DA14 4DX

PLEASE SEND ME FREE LITERATURE ON THE AMIGA

Mr/Mrs/Ms: .... Initials: .... Surname: ....

Address: ....

....

....

Postcode: .... Dept NCE 0390

Do you already own a computer
If so, which one do you own? ....

COMPUTER CHAOS

A selection of computers which perpetrate disasters from the copious annals of Mel Croucher

ORLANDO, FLORIDA

Traffic around Walt Disney World is controlled by a synchronised system at 34 road intersections, all controlled by one central computer, costing $3 million. At 12.30pm at the height of lunch-hour traffic, a maintainance engineer forgets to connect one jack plug. Immediately, all the lights turn red and stay that way, paralysing the entire downtown area within six minutes. The situation is remedied by a decidedly low-tech solution: traffic cops on horseback.

The Mayor's spokesman, Joe Mittiga, says things could have been worse: "We're lucky the lights didn't stall on green!"

(United Press International)

VOLGADRAD, USSR

A systems programmer at the Gorky Automobile works is charged under Soviet Criminal Article 206, the so-called Hooligan Law, with "violating public order in a coarse manner and expressing a clear disrespect towards society". In a dispute over working conditions, he shuts down an assembly line by trashing the control computer with a home-made virus. Maximum sentence: six years.

(Radio Moscow)

PARIS, FRANCE

Twenty-two-year-old computer buff Philippe Gombert is arrested by the Securité, after gunning down Jose Pereira, an electronics expert.

The two men have devised a system whereby they can draw unlimited amounts from French cash dispensers, but start arguing when Gombert insists the system is not yet fool-proof. During a trial scam, they make six successful withdrawals before the target machine swallows their card. Officials report that with his gun still smoking, Gombert's first words are "I told you so!"

(*Le Monde*)

FRESNO, CALIFORNIA

The city water authority installs a $2.3 million computerised metering system, designed to eliminate foul-ups in 106 water pumps and 850 miles of piping. One of the automatic burglar alarms sends a scrambled signal back to the control computer, which shuts down the pumps. An automatic over-ride tries to turn them back on, resulting in a tidal wave of sewage surging through the city at 75 pounds per square inch. The city's older mains immediately explode, but one fail-safe device does manage to work: the one that automatically turns on the fire alarms!

(*San Jose Mercury*)

LAKEWOOD, NEW JERSEY

90,000 orders are received for special UNICEF Christmas cards, and are fed into the telemarketing computer run by TMI Inbound Ltd. The orders are then collated and squirted down the line to BSA-Fulfillment Service Incorporated where they disappear into an electronic black hole. Mr Colin J Rainsbury, Vice President of UNICEF's greeting card division, explains that "we have a little bug in the system" but promises delivery of the Christmas cards before the spring.

(*New York Times*)

BIOSPHERE, SWEDEN

After an 18-month delay, the first of Saab's JAS39 Gripen combat fighter takes to the skies. The computer flight control has a triplex digital fly-by-wire system with a triple analogue backup, but it experiences "problems with lateral oscillations", in other words it crashes. The reason for this multi-billion krona cock up is found to be that the software misreads the movement of the joystick (something that any bog-standard home micro has no trouble in achieving.) Saab then issues the following press release: "Delivery of the first production aircraft... is now expected in 1933".

(*Flight International*)

MAKE SURE OF YOUR COPY OF NEXT WEEK'S EXPRESS

Hand this form to your newsagent to get your copy of *Express* next Thursday

TO THE NEWSAGENT: Please deliver to me / reserve for me (delete as applicable)

________ copies of *New Computer Express*

NAME ....

ADDRESS ....

....

....

NEXT WEEK

SOFT FOR EUROPE

We analyse what our Continental partners get up to on the software front

GAME PLAN

CRL has put together a radical new games development system. We take a look

THE CHEAPEST WORD PROCESSOR

Sanyo's remarkable £299 word processor gets the full Express treatment

PLUS

- The Shopping Express guide to the best in games for your machine
- Tech Tips: technical advice with the human touch
- Letters: The best debate outside of Parliament

WITH

A column for your machine. Expert correspondents on ST, PC, Amiga, C64, Spectrum, Archimedes, BBC, MSX, QL, PCW, XE and CPC

AND

Six pages of up-to-the-minute news

STAY AHEAD WITH EXPRESS

ATARI ST and AMIGA

Sixteen Bit Superdeals from the Sixteen Bit Specialists!

CUSTOMERS PLEASE NOTE! When comparing prices remember ours include fast delivery by courier.

NEW!! NEW STE

520STE Power Pack

£359.00

Inc. VAT and Next Day Delivery

Power Pack includes:

- ★ 520STE 512K Keyboard with Built-in 1 Megabyte disk drive and TV Modulator
- ★ 4096 Colour Palette
- ★ 8 Channel digital stereo sound
- ★ 4 Joystick Ports
- ★ Over £550 worth of games software, including OutRun, Gauntlet 2, R-Type, Space Harrier, Super HangOn and 16 more Top Games
- ★ Organiser Business Software including WORDPROCESSOR, SPREADSHEET and DATABASE
- ★ First BASIC and First Music Utility Software
- ★ FREE JOYSTICK AND FREE MOUSE MAT WORTH £4.95
- ★ All leads, manuals PLUS MOUSE and free mains plug!

REMEMBER! Many ST's do not come with BASIC - ours come with ST BASIC REV D by Metacomco

NEW STE

520STE Explorer Pack

£279.00

- ★ Explorer Pack includes 520STE 512K Keyboard with built-in 1 Megabyte Disk Drive and TV Modulator.
- ★ 1 FREE Game, ST Tutorial and METACOMCO Basic worth £25.00.
- ★ All leads, Manuals PLUS MOUSE and FREE Mains Plug!
- ★ Free mouse mat worth £4.95.

1040STE BUSINESS PACK

£479.00

- ★ Includes the new 1 megabyte 1040STE keyboard plus over £200 worth of business software including WORD UP wordprocessing software, featuring glossary and mail merge, K-Spread 3.0 Spreadsheet and SUPERBASE PERSONAL database software. Also includes Metacomco BASIC Mouse pad, all Leads, Manuals and Mouse
- ★ 1040STE keyboard without software **£439.00**

MEGA 1 BUSINESS Pack

£549.00

Features:

- ★ Separate Keyboard and System Unit
- ★ Inc. all software supplied with 1040 STE Business Pack
- ★ Blitter chip installed for faster graphics

Inc SM124 Mono Monitor........£628.00

ACCESSORIES

Quickshot II Turbo Joystick	£9.95
Competition Pro 5000 Joystick	£13.95
Competition Pro with Autofire	£14.95
Konix Speedking Joystick	£11.95
Red Mouse Mat with Amiga logo	£5.95
Plain blue Mouse Mat	£4.95
Branded Memorex 3.5" DSDD Disks Box of 10	£13.95
Memorex Disk Box For 40 3.5" Disks	£8.95
Amiga 1/2 Meg Expansion	£119.95
Control Centre Atari or Amiga	£44.95

Contriver Amiga and ST Mouse with FREE Holder and Mouse Pad £20.95

PRINTERS

Star LC24-10 24Pin incl. lead ST/Amiga	£249.00
Star LC10 including interface lead for ST/Amiga	£169.00
Star LC10 colour including interface lead for ST/Amiga	£219.00
Citizen 120D including interface lead for ST/Amiga	£139.00

SEIKOSHA 80 COLUMN PRINTERS - AMAZING PRICES

Seikosha 9 pin NLQ including interface lead for ST/Amiga	£139.00
Seikosha 24 pin LQ including interface lead for ST/Amiga	£239.00

AMIGA A500 BAT GAMES PACK

£399.00

Inc. VAT and Next Day Delivery

NEW!

BAT Games Pack includes:

- ★ Amiga A500 512K Keyboard with Built-in 1 Megabyte disk drive.
- ★ Free TV modulator worth £24.99 allowing you to use the Amiga with a normal TV.
- ★ DELUXE PAINT II GRAPHICS PACKAGE.
- ★ PHOTON PAINT II graphics package with animation worth £70.00.
- ★ FREE, only-just-released BATMAN - THE MOVIE games software.
- ★ NEW ZEALAND STORY arcade games software.
- ★ F16-INTERCEPTOR - amazing 3D flight simulator software.
- ★ A further £230 worth of Games Software, including BUGGY BOY, MERCENARY, BARBARIAN, WIZBALL & six more games.
- ★ FREE JOYSTICK, MOUSE MAT AND 10 BLANK DISKS.
- ★ Amiga BASIC, Amiga EXTRAS 1.3, Workbench 1.3 PLUS the Amiga Step by Step Tutorial.
- ★ All leads, manuals PLUS MOUSE and mains plug!

AMIGA 1 MEG BAT GAME PACK

£529.00

NEW!

1 Meg Bat Games Pack includes:

- ★ Fitted 1 Megabyte Memory Expansion + Real Time Clock Card
- ★ Everything listed for the A500 Bat Game Pack
- ★ DRAGON'S LAIR 1 MEG MEGAGAME!

AMIGA A500 CLASS OF THE 1990'S BUSINESS + EDUCATIONAL PACK

£549.00

FEATURES:

- ★ Amiga A500 + TV Modulator
- ★ Midi Interface + Software
- ★ Kind Words II word processor
- ★ Page Setter DTP
- ★ Super Base Personal Database
- ★ Maxiplan 500 Spreadsheet
- ★ Amiga Logo, BBC Emulator, Deluxe Paint II
- ★ Mouse mat, 10 blank disks and disk wallet

EXTERNAL DISK DRIVES

Atari SF314 1 Megabyte	£139.00
Amiga A1010 1 Megabyte	£109.00
Cumana 1 Megabyte Atari or Amiga	£89.95
NEC 1 Megabyte Atari or Amiga	£79.95
Atari Megafile 30 Hard Disk	£439.00
New! Commodore A590 20 meg hard disk	£369.00
A590 Hard Disk + Memory Upgrade installed	Phone

MONITORS

Commodore Amiga A1084 stereo Monitor inc lead	£269.00
Atari SC1224 Colour Monitor inc lead	£259.00
Atari SM124 Mono Monitor including lead	£119.00
Philips CM8833 stereo colour monitor inc. lead for ST or Amiga	£259.00

CREDIT CARD ORDERLINE ☎ 0908 378008 (Mon – Sat 9am – 6pm)

To order either call the orderline above with your Credit Card details OR make a cheque or P.O. payable to: Digicom Computer Services and send it with your order to the address below. Callers are also most welcome at the address below.

INSTANT CREDIT NOW AVAILABLE

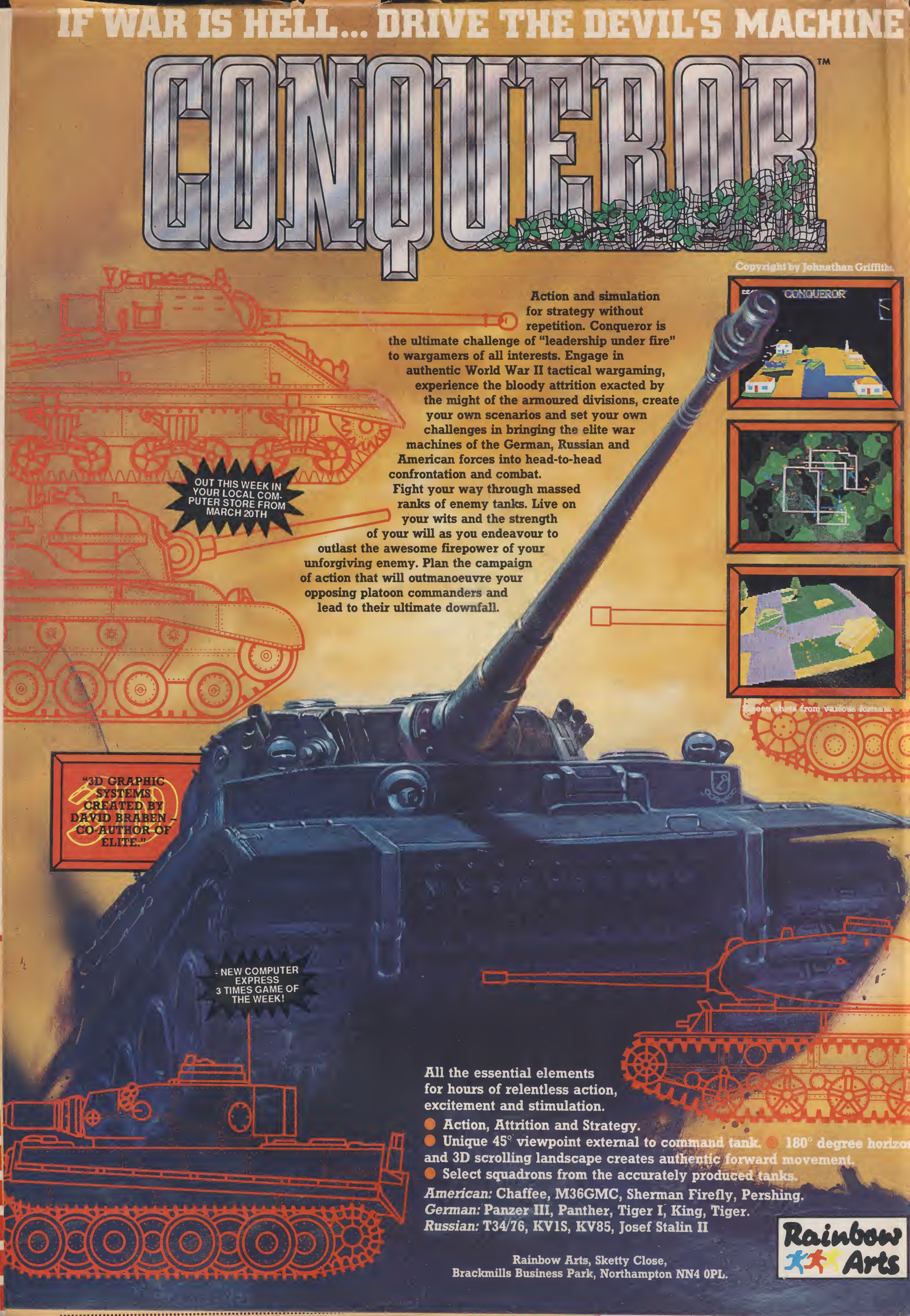
DIGICOM

Unit 36, Wharfside, Fenny Stratford, MILTON KEYNES, MK2 2AZ.

All prices include VAT and delivery by courier

* *Written details on request APR 34.5% Variable.*

VISA


IF WAR IS HELL... DRIVE THE DEVIL'S MACHINE
CONQUEROR™
CONQUEROR
OUT THIS WEEK IN YOUR LOCAL COMPUTER STORE FROM MARCH 20TH
"3D GRAPHIC SYSTEMS CREATED BY DAVID BRABEN – CO-AUTHOR OF ELITE."
NEW COMPUTER EXPRESS 3 TIMES GAME OF THE WEEK!

Copyright by Johnathan Griffiths.

Action and simulation for strategy without repetition. Conqueror is the ultimate challenge of "leadership under fire" to wargamers of all interests. Engage in authentic World War II tactical wargaming, experience the bloody attrition exacted by the might of the armoured divisions, create your own scenarios and set your own challenges in bringing the elite war machines of the German, Russian and American forces into head-to-head confrontation and combat.

Fight your way through massed ranks of enemy tanks. Live on your wits and the strength of your will as you endeavour to outlast the awesome firepower of your unforgiving enemy. Plan the campaign of action that will outmanoeuvre your opposing platoon commanders and lead to their ultimate downfall.

Screen shots from various formats.

All the essential elements for hours of relentless action, excitement and stimulation.

- Action, Attrition and Strategy.
- Unique 45° viewpoint external to command tank.
- 180° degree horizo and 3D scrolling landscape creates authentic forward movement.
- Select squadrons from the accurately produced tanks.

American: Chaffee, M36GMC, Sherman Firefly, Pershing.
German: Panzer III, Panther, Tiger I, King, Tiger.
Russian: T34/76, KV1S, KV85, Josef Stalin II

Rainbow Arts, Sketty Close,
Brackmills Business Park, Northampton NN4 0PL.

Rainbow Arts